



NOAA
Coast Survey

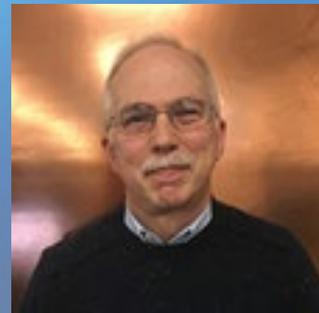
NOAA Custom Chart 2.0

Webinar ~ April 19, 2023



Christie Ence
Chief, Chart Standards Group

Office of Coast Survey
Marine Chart Division



Colby Harmon
Cartographer / Project Manager



NOAA
Coast Survey

Questions

Use the *Questions Window*
to enter any questions during the webinar.

Questions will be answered *at the end*.

Don't use the Chat!

Comments or questions in Chat will not be addressed.



NOAA
Coast Survey

NOAA Custom Chart 2.0

Webinar recording and other materials

www.nauticalcharts.noaa.gov/about/nav-cast.html

- Presentation Slides
- Video Recordings
- Transcripts

- NOAA Custom Chart control panels
- Electronic Navigational Chart (ENC) usage bands
- Setting a safety contour and depth shading
- **NOAA Custom Chart Application Demo**
- Upcoming Enhancements
- Paper sizes and chart scale
- Users guides and customer feedback
- Questions

Help Documentation

Use these links to open the two-page Quick Start Guide or the detailed-instructions in the User Guide. U.S. Chart No. 1 describes the meaning of symbols used on nautical charts.

- [Quick Start Guide](#)
- [User Guide](#)
- [Creating a Custom Chart and a Personal Chart Catalog \(12.23\)](#)
- [Legend \(U.S. Chart No. 1\)](#)

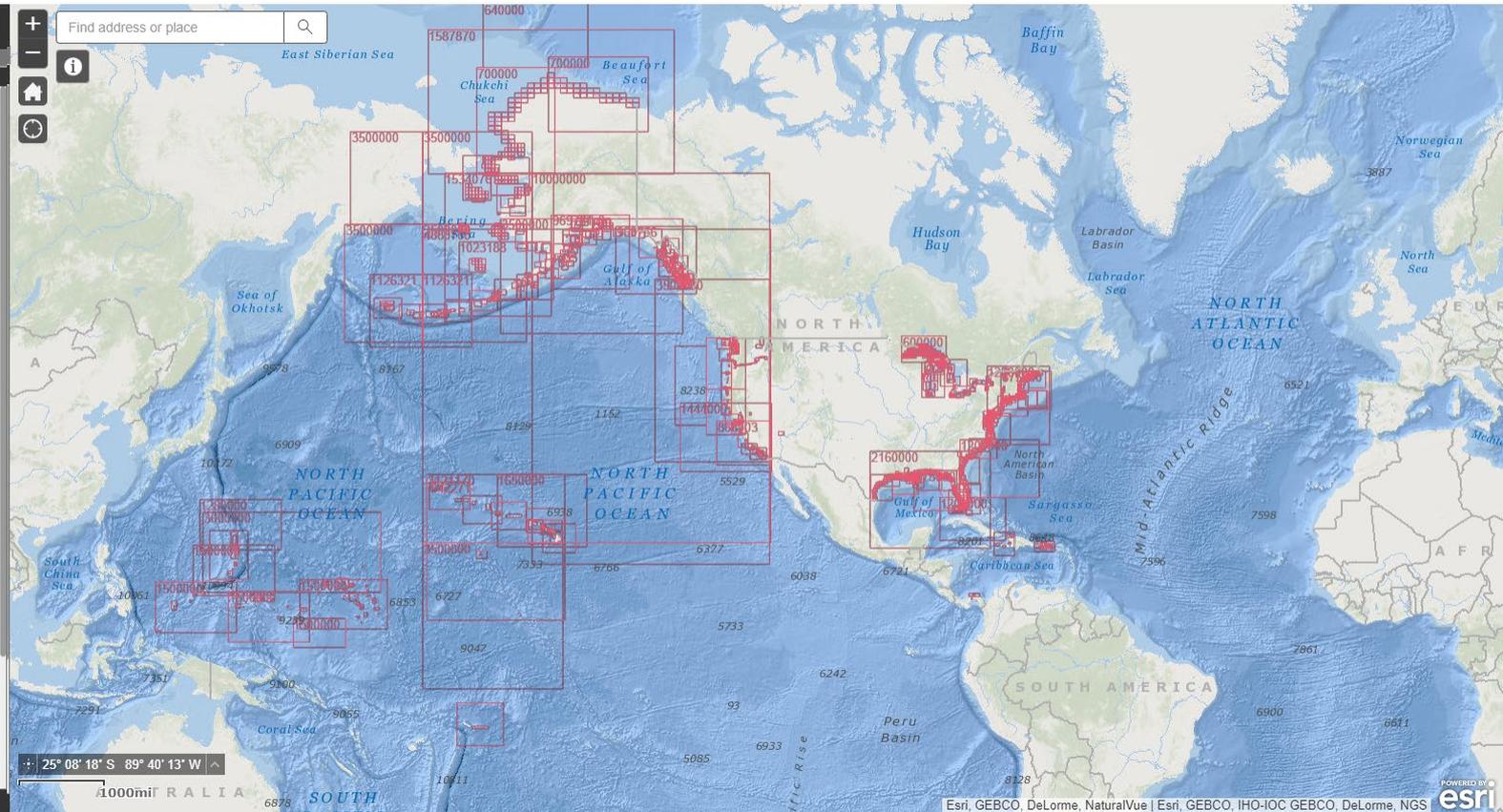
New in NOAA Custom Chart Version 2.0

Enhancements

- Added Personal Chart Catalog functionality
 - Enables users to save their own custom chart parameters for later use.
 - Enables users to share their custom chart parameters with others.
 - Enables users to reload saved chart parameters to recreate charts with newly updated information.
- Streamlined user interface with clearer icons and descriptions for each step.
- Modified additional symbology to emulate paper chart.
- New 36" x 48" Plotter page size.

Bug Fixes

- Fixed error creating portrait orientation ANSI C size charts.



Navigation icons: Home, Search, Print, Share, Refresh

Find address or place

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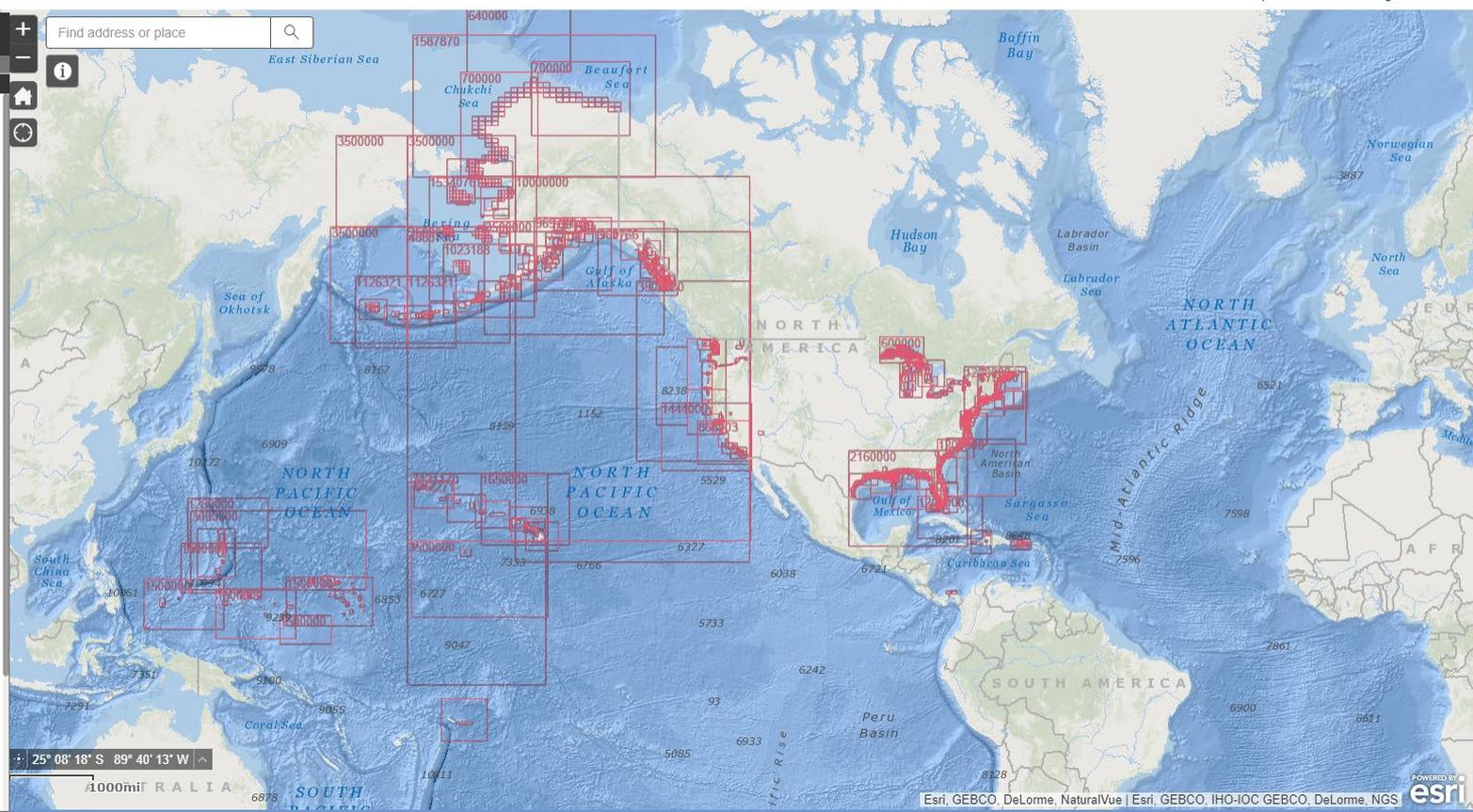
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Layer Settings

Use these checkboxes to restrict the chart data used for your chart to specific intended use categories. Check "All Datasets" to allow the application to choose the best available data for your chart. For a detailed description of data extents and intended uses, please refer to the [User Guide](#).

Data extents: On Off

Data extent text:

Intended uses:

All Datasets

Overview

General

Coastal

Approach

Harbour

Berthing

Honor SCAMIN: On Off

Compass roses: On Off



Chart Settings

Use these settings to enter your chart parameters. More information about chart scale, depth zone shades and other settings is in the [User Guide](#).

Name:

Scale:

Page size:

Orientation:

Depth units:

Depth zones:

Shallow:	Safety:	Deep:
<input type="text" value="5"/>	<input type="text" value="11"/>	<input type="text" value="17"/>

Depth zones shallower than the entered values are tinted in the shade of blue shown. If no contour for the value exists in the ENC data, the next deeper contour is used. Depth zones deeper than the "Deep" value are displayed as white.

[Create New Chart](#) [Move Chart](#)

After populating all fields, click Create New Chart, then click the map once at the center of your chart. Click Move Chart, then click and drag the chart outline to refine its position.



Export Functions

New charts and charts retrieved from your Personal Chart Catalog are shown in this list. To export, delete, or move selected charts into your catalog, click the associated button.

Chart Catalog

[Open Chart Catalog Viewer](#)

Active Catalog

Chart Queue

[Export Selected Charts](#) [Delete Selected Charts](#)

[Add Selected Charts to Chart Catalog](#) →



Feedback

Use this link to ask a question, comment or report an error in the NOAA Custom Chart application.

[How may we assist you today?](#)

Help Documentation

Use these links to open the User Guide or the User Guide for the NOAA Custom Chart Version 2.0.

User Guides & Videos

- User Guide
- Creating a Custom Chart and a Personal Chart Catalog (12.23)
- Legend (U.S. Chart No. 1)

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Bug Fixes

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Layer Settings

Use these checkboxes to restrict the chart data used for your chart to specific ENC categories. See the User Guide for more information.

Data extents: On Off

Data extent text:

Intended uses:

- All Datasets
- Overview
- General
- Coastal
- Approach
- Harbour
- Berthing

Honor SCAMIN: On Off

Compass roses: On Off

Chart Settings

Use these settings to enter your chart parameters. More information about chart scale, depth zone shades and other settings is in the User Guide.

Page size:

Orientation:

Depth units:

Depth zones:

Depth zone shades:

Shallow:	Safety:	Deep:
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Export Functions

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Chart Queue

Feedback

Use this link to ask a question or report an error in the software.

Comments & Questions



Help Documentation

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Data extents: On Off

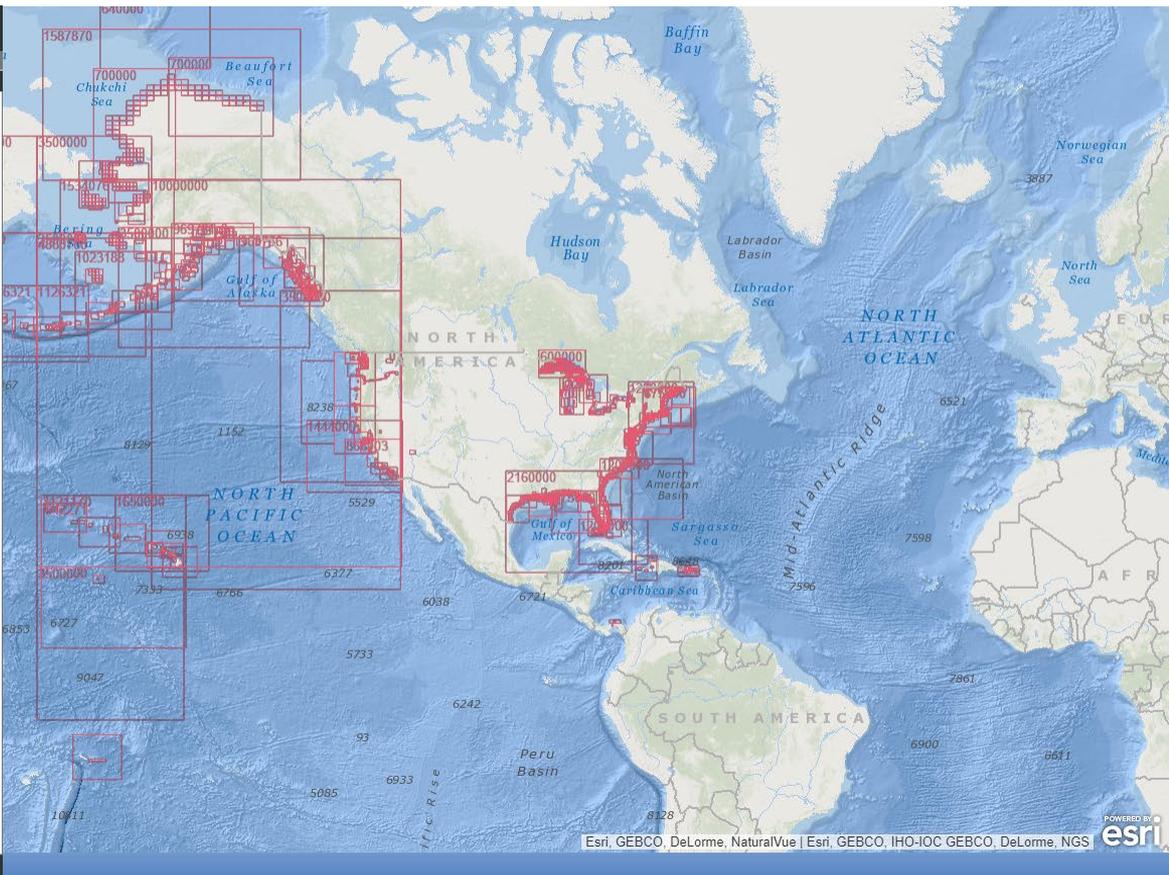
Data extent text: On Off

Intended uses:

- All Datasets
- Overview
- General
- Coastal
- Approach
- Harbour
- Berthing

Honor SCAMIN: On Off

Compass roses: On Off



Electronic Navigational Chart (ENC) Intended Uses

Layer Settings

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Data extents: On

Data extent text: Scale

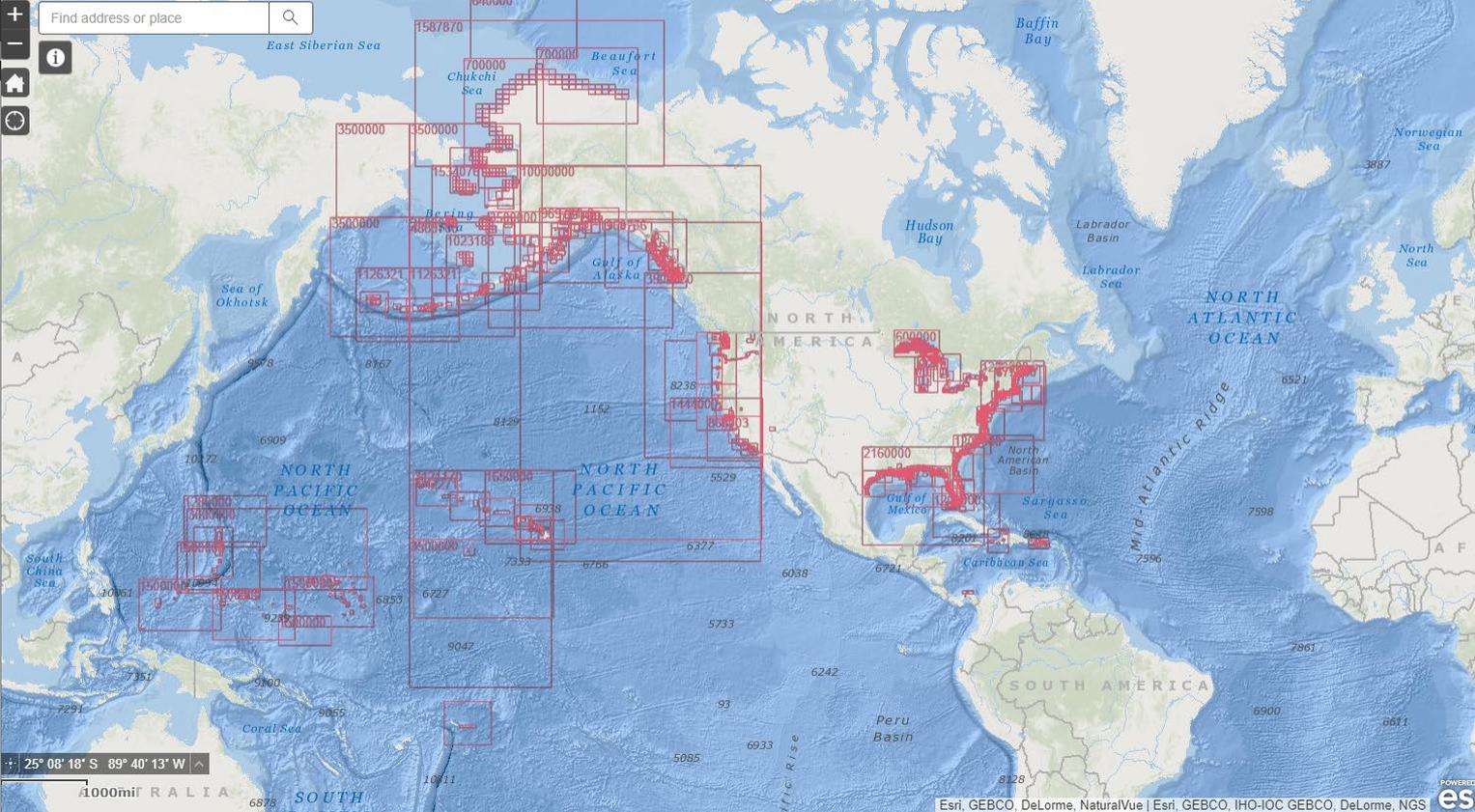
Intended uses:

- All Datasets
- Overview
- General
- Coastal
- Approach
- Harbour
- Berthing

Honor SCAMIN: On Off

Compass roses: On Off

Find address or place

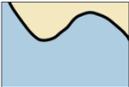


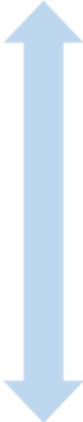
$\pm 25^{\circ} 08' 18'' S \ 89^{\circ} 40' 13'' W$

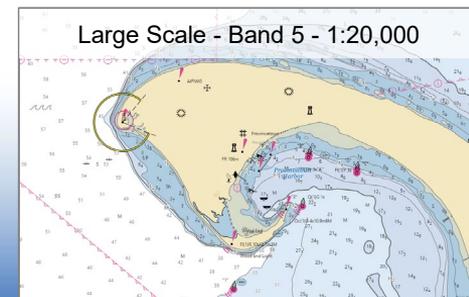
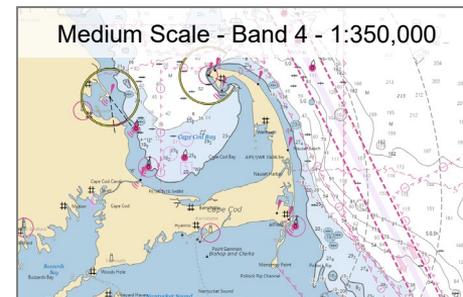
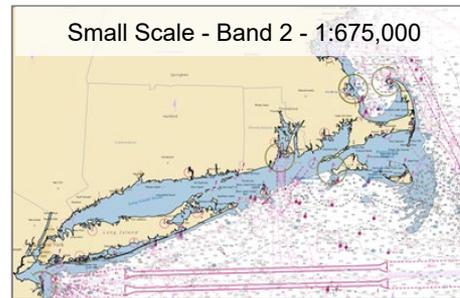
1000mi RALIA

Esri, GEBCO, DeLorme, NaturalVue | Esri, GEBCO, IHO-IOC GEBCO, DeLorme, NGS

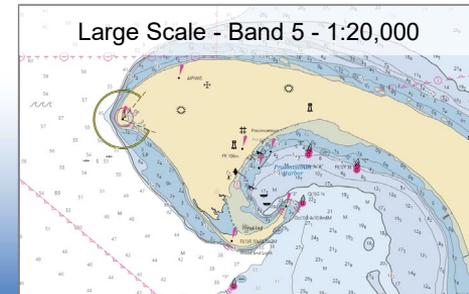
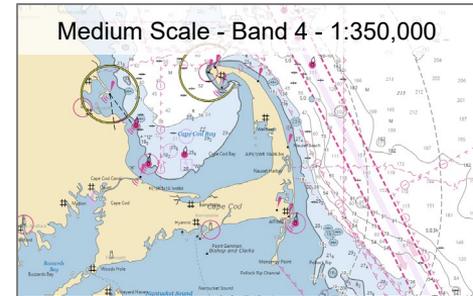
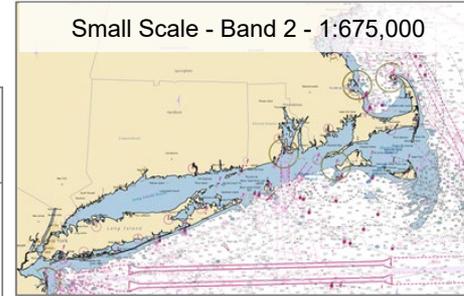
All Datasets
 Overview
 General
 Coastal
 Approach
 Harbour
 Berthing

ENC Usage Band	Current NOAA ENC Scale Ranges	Scale	Extent of Area Covered by Map	Detail Shown on Chart
1 Overview	1:10,000,000 1:587,870		Larger	Less
2 General	1:1,534,076 1:240,000			
3 Coastal	1:600,000 1:150,000			
4 Approach	1:135,000 1:40,000			
5 Harbor	1:50,000 1:5,000		Smaller	More
6 Berthing	1:12,000 1:2,500		Larger	Smaller

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1 Overview	1:10,000,000 1:587,870		Larger	Less
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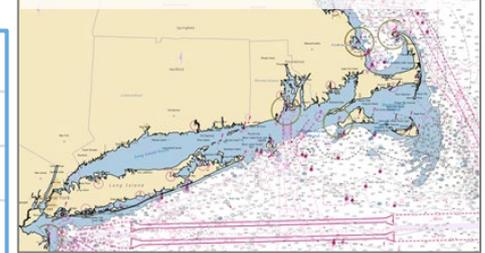
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4. Approach	1:135,000 1:40,000			
5. Harbor	1:50,000 1:5,000		Smaller	More
6. Berthing	1:12,000 1:2,500		Larger	Smaller



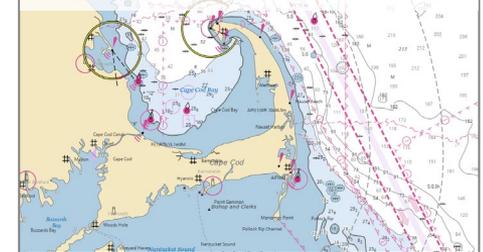
Overlapping ENC Usage Bands

Scale	ENC Usage Band					
1:10,000,000	10,000,000					
1:1,534,076	1.Overview	1,534,076				
1:600,000		2.General	600,000			
1:587,870	587,870		3.Coastal			
1:240,000		240,000				
1:150,000			150,000			
1:135,000				135,000		
1:50,000			4.Approach		50,000	
1:40,000				40,000		
1:12,000			5.Harbor			12,000
1:5,000				5,000		6.Berthing
1:2,500					2,500	

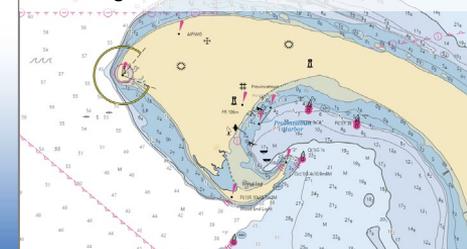
Small Scale - Band 2 - 1:675,000



Medium Scale - Band 4 - 1:350,000



Large Scale - Band 5 - 1:20,000



Layer Settings

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Data extents: On Off

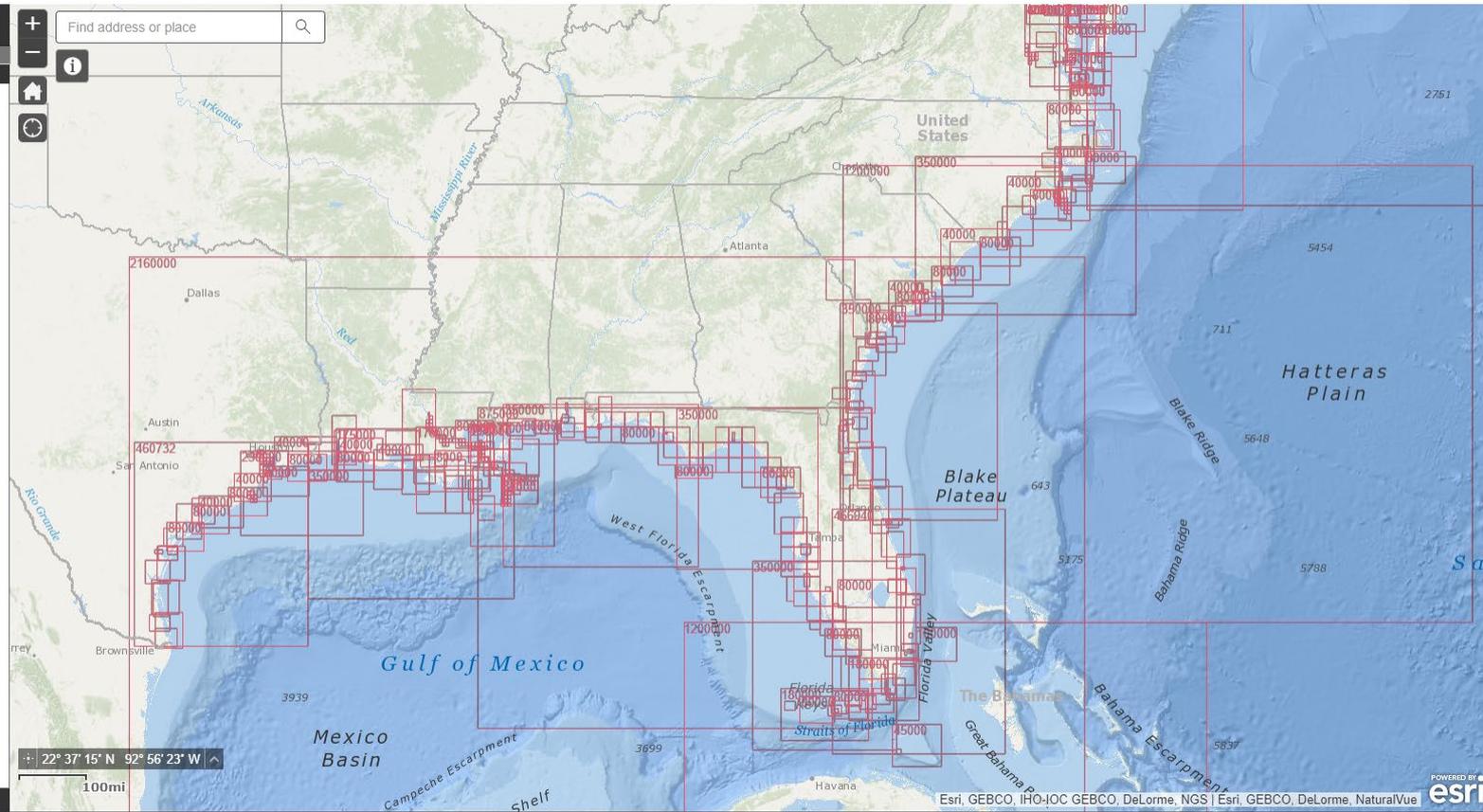
Data extent text: Scale Off

Intended uses:

- All Datasets
- Overview
- General
- Coastal
- Approach
- Harbour
- Berthing

Honor SCAMIN: On Off

Compass roses: On Off



Layer Settings

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Data extents:

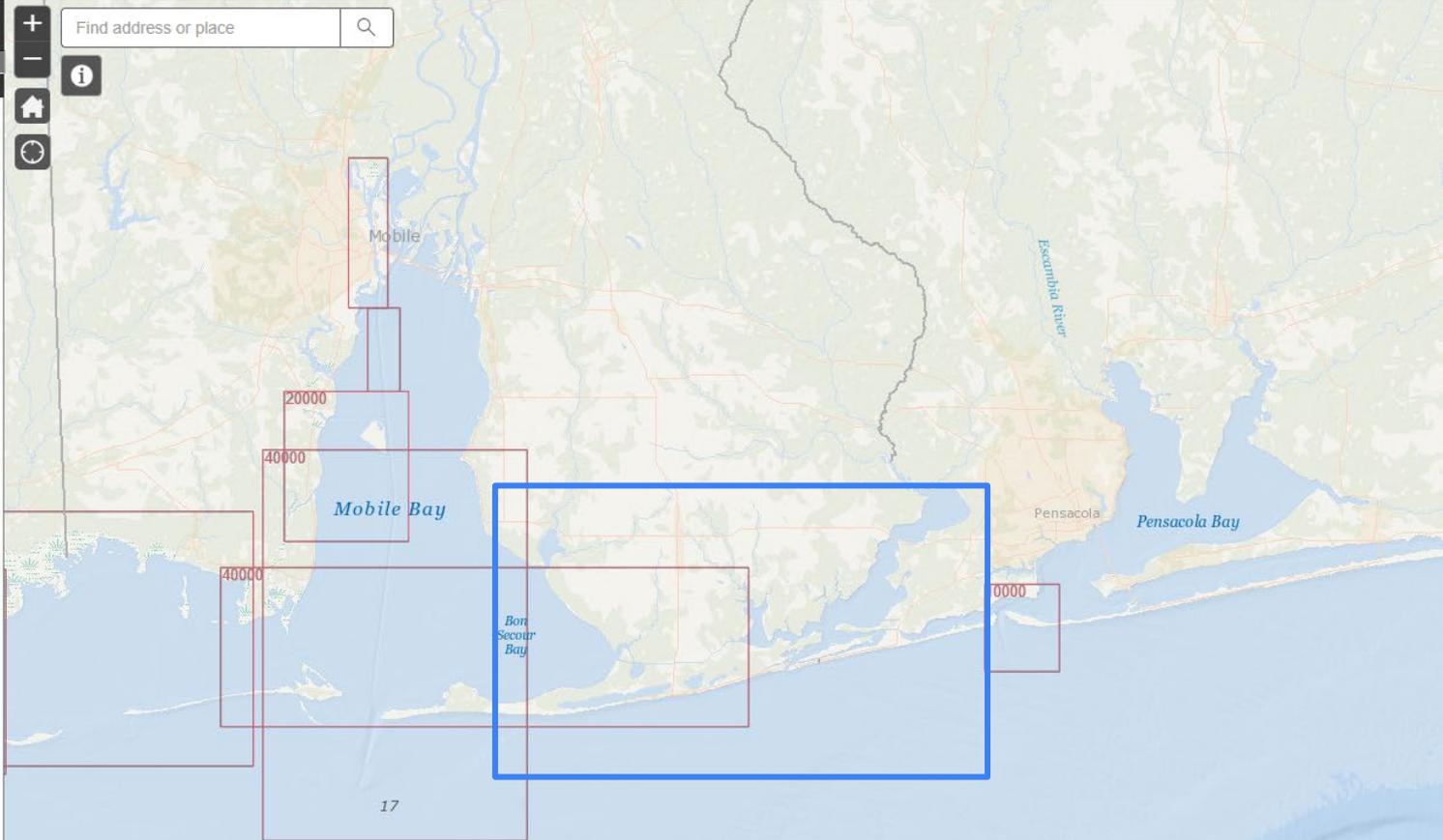
Data extent text:

Intended uses:

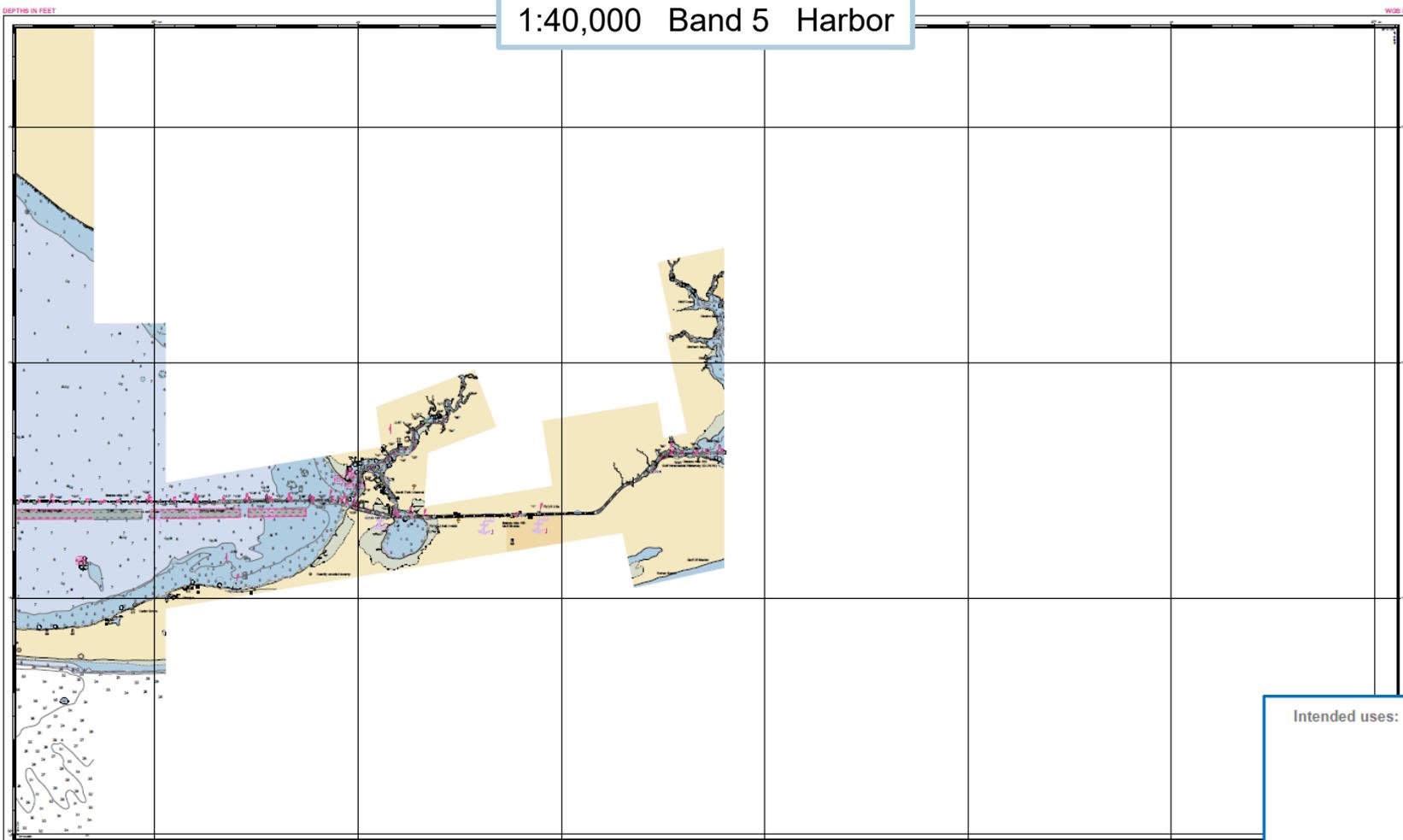
- All Datasets
- Overview
- General
- Coastal
- Approach
- Harbour
- Berthing

Honor SCAMIN: On Off

Compass roses: On Off



1:40,000 Band 5 Harbor



WGS 84



NOTES
1. This chart is a reproduction of the original chart and is not to be used for navigation.
2. The original chart is available for purchase from the National Oceanic and Atmospheric Administration (NOAA).
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- Intended uses:
- All Datasets
 - Overview
 - General
 - Coastal
 - Approach
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 - Berthing



ENC “minimum bounding rectangles”

Navigation icons: ? (help), layers, grid, download, chat

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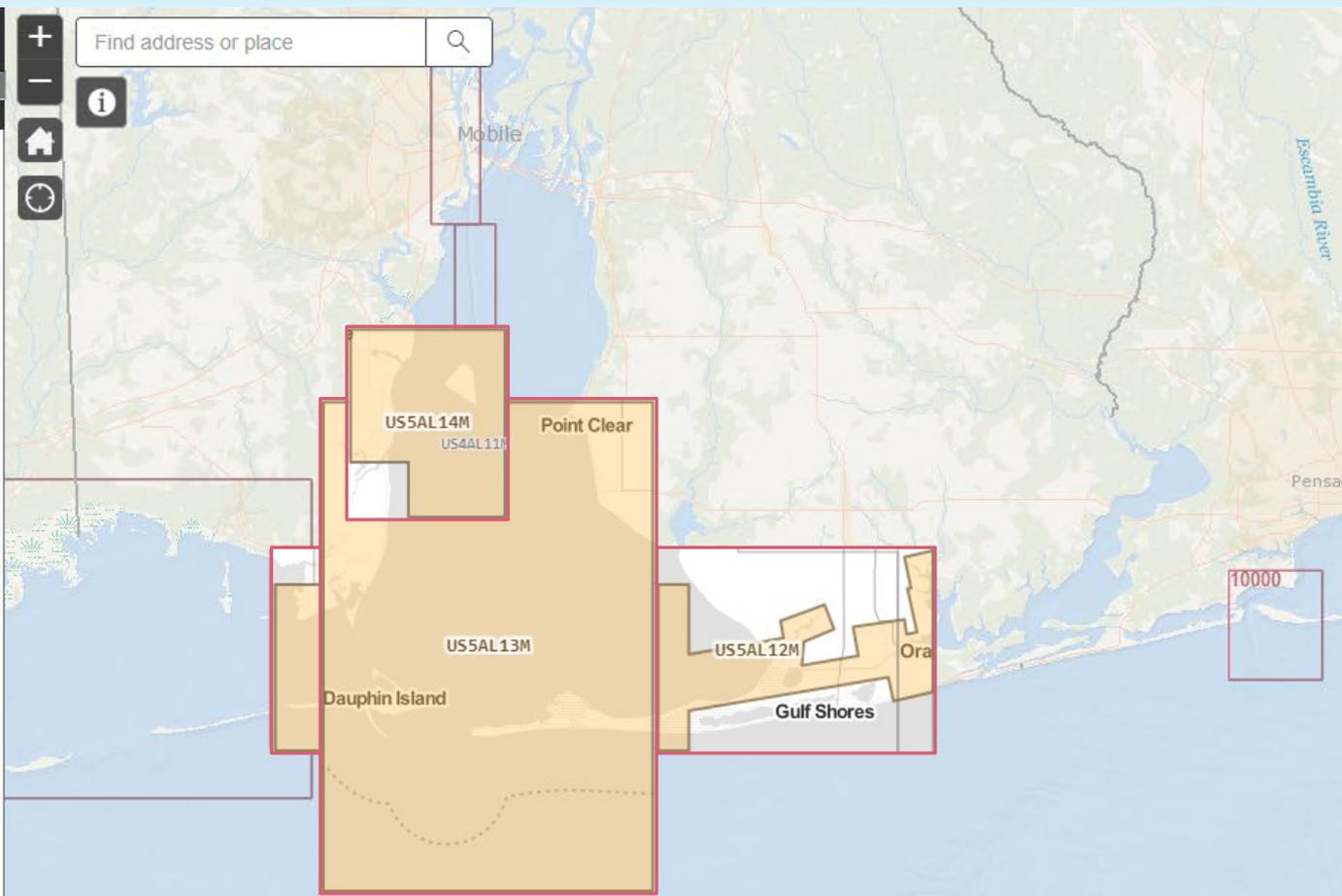
Data extents: ▼

Data extent text: ▼

- Intended uses:
- All Datasets
 - Overview
 - General
 - Coastal
 - Approach
 - Harbour
 - Berthing

Honor SCAMIN: On Off

Compass roses: On Off



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Data extents: On

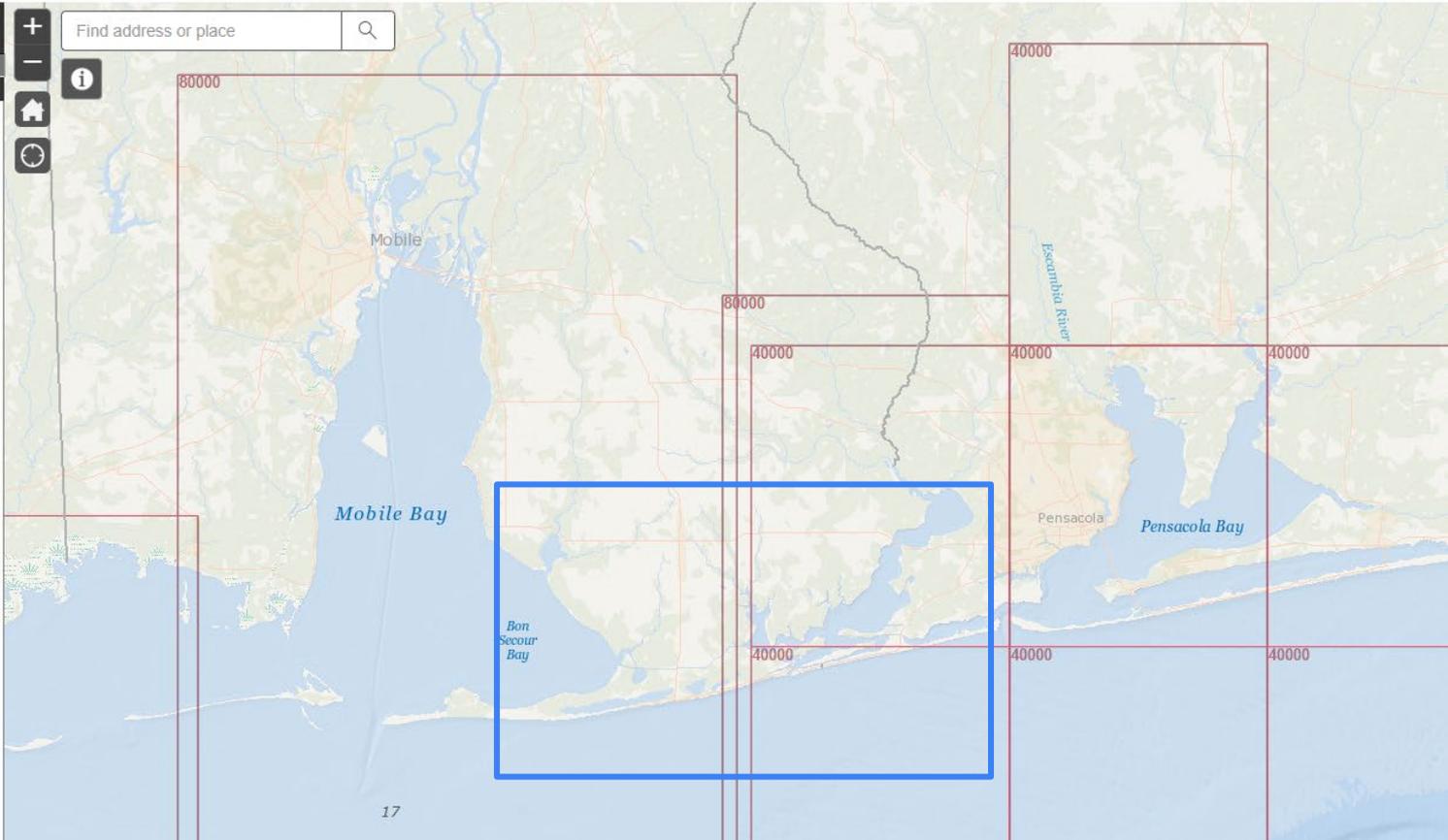
Data extent text: Scale

Intended uses:

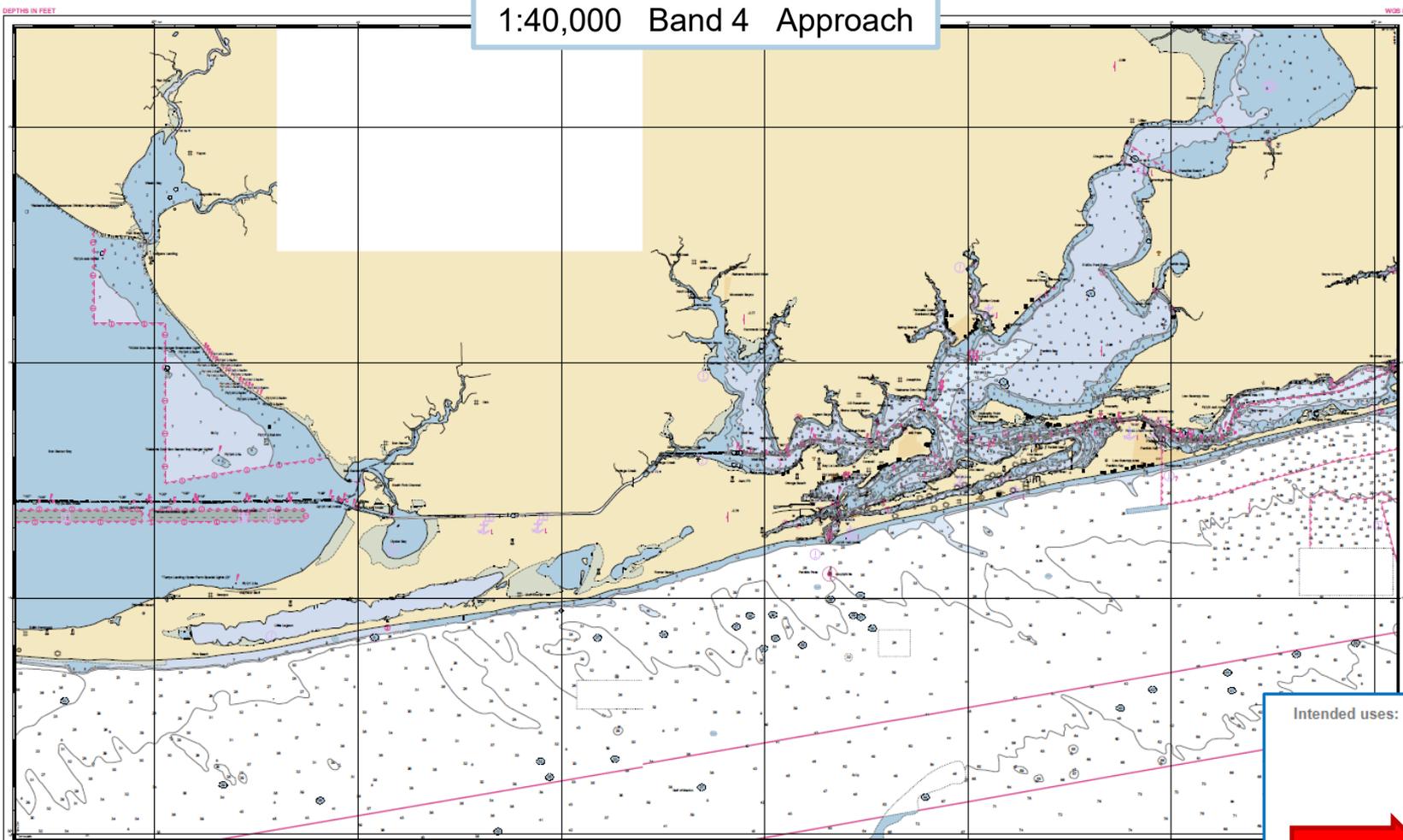
- All Datasets
- Overview
- General
- Coastal
- Approach
- Harbour
- Berthing

Honor SCAMIN: On Off

Compass roses: On Off



1:40,000 Band 4 Approach



- Intended uses:
- All Datasets
 - Overview
 - General
 - Coastal
 - Approach
 - Harbour
 - Berthing



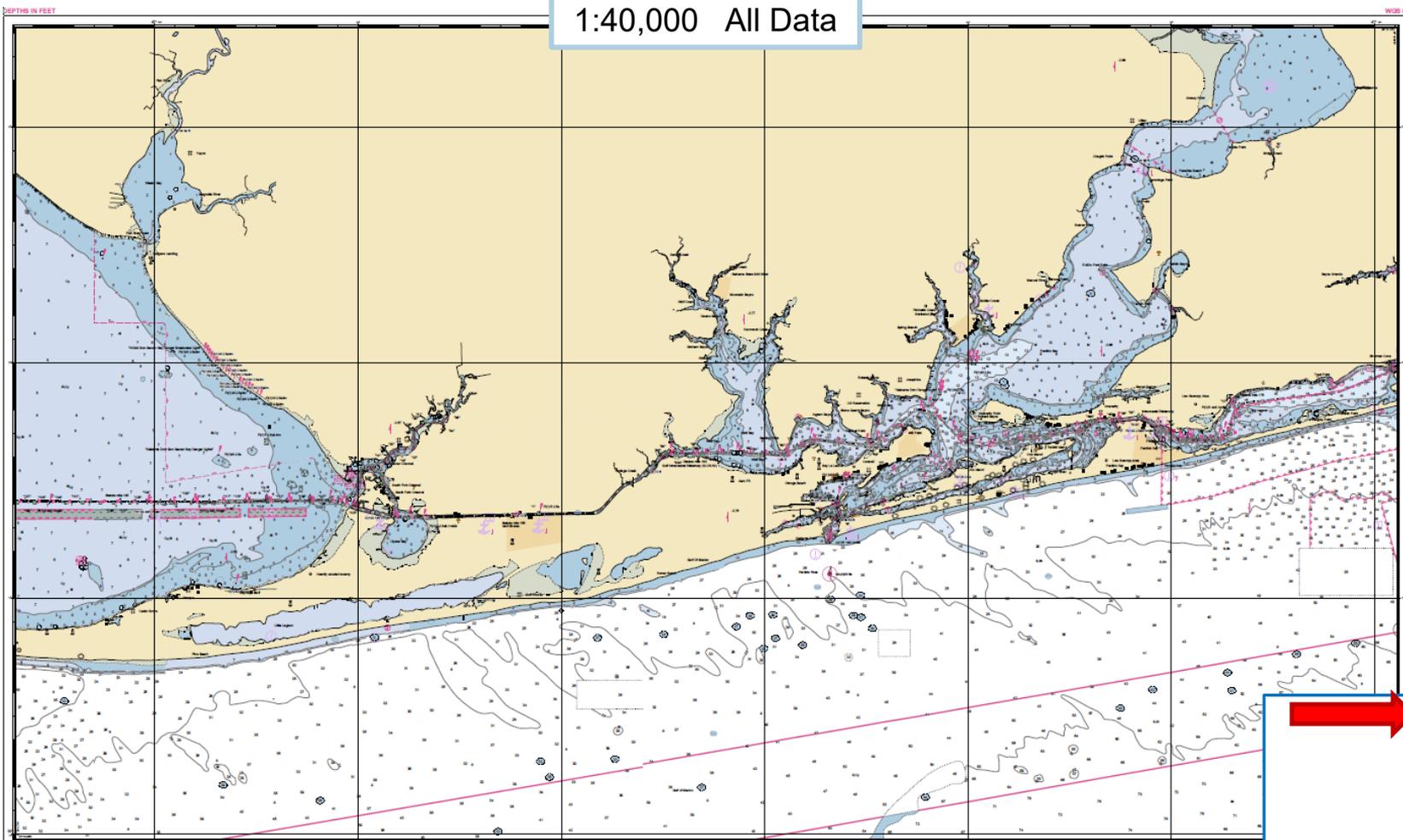
NOTES:
1. This chart is a reproduction of the original chart and is not to be used for navigation.
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3. The chart is a reproduction of the original chart and is not to be used for navigation.

1:40,000 All Data



- All Datasets
- Overview
- General
- Coastal
- Approach
- Harbour
- Berthing



NOTES
1. This chart is based on the latest available data.
2. The depths are in feet.
3. The soundings are in fathoms.
4. The chart is subject to change without notice.
5. For more information, contact the National Hydrographic Office.

Scale
1:40,000

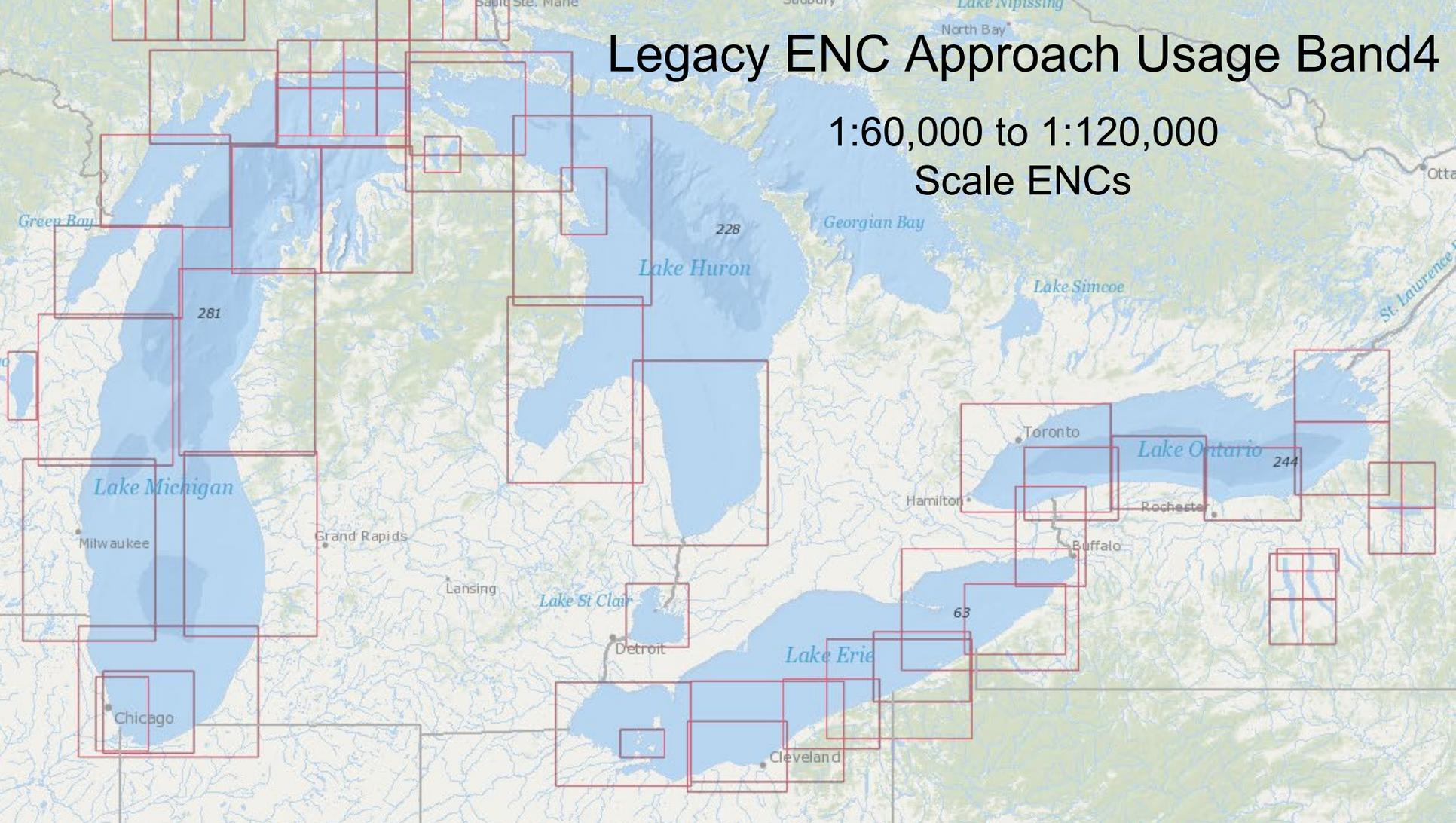
Scale
1:40,000

Scale
1:40,000

WS 84

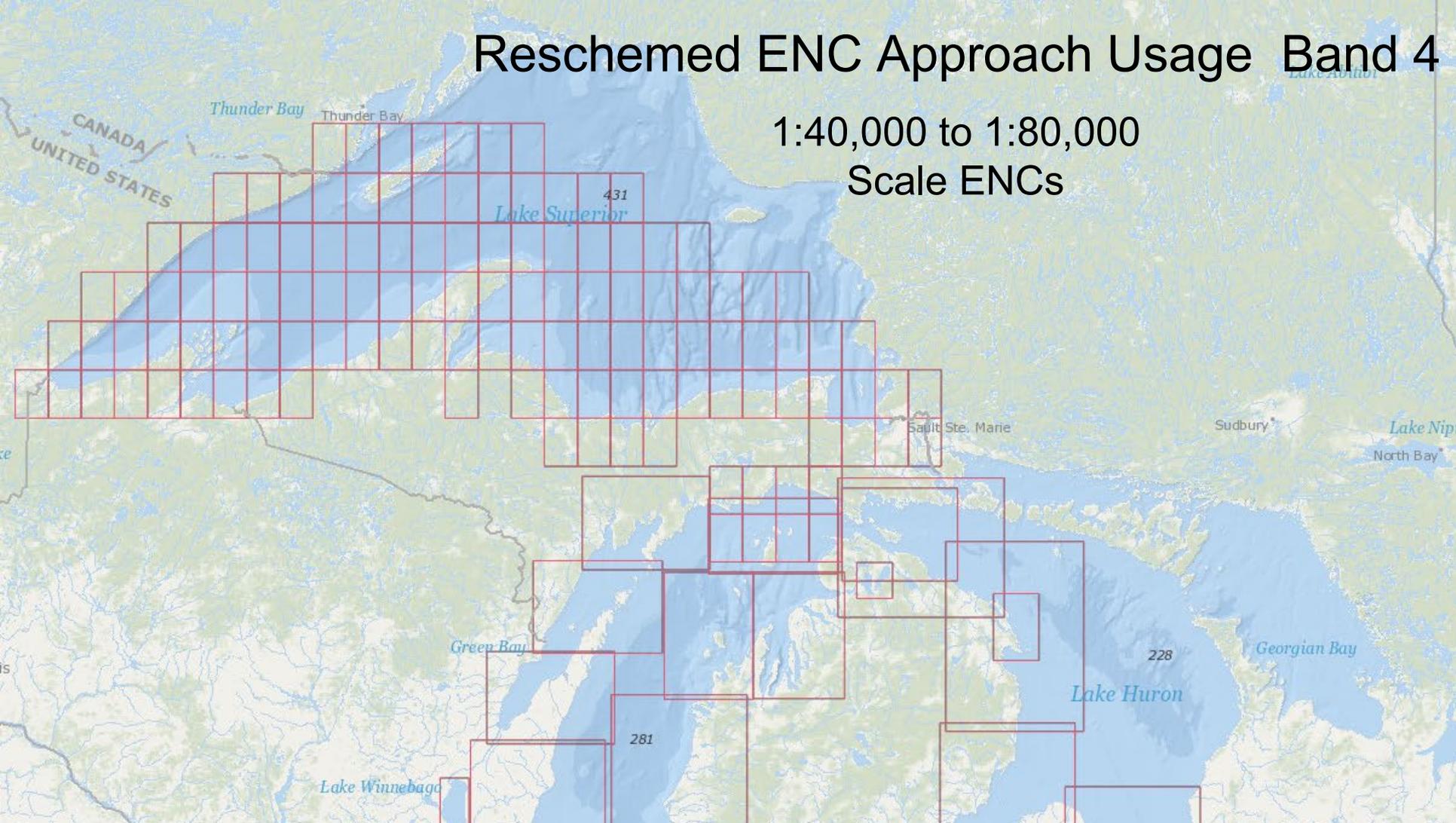
Legacy ENC Approach Usage Band4

1:60,000 to 1:120,000
Scale ENCs



Reschemed ENC Approach Usage Band 4

1:40,000 to 1:80,000
Scale ENCs



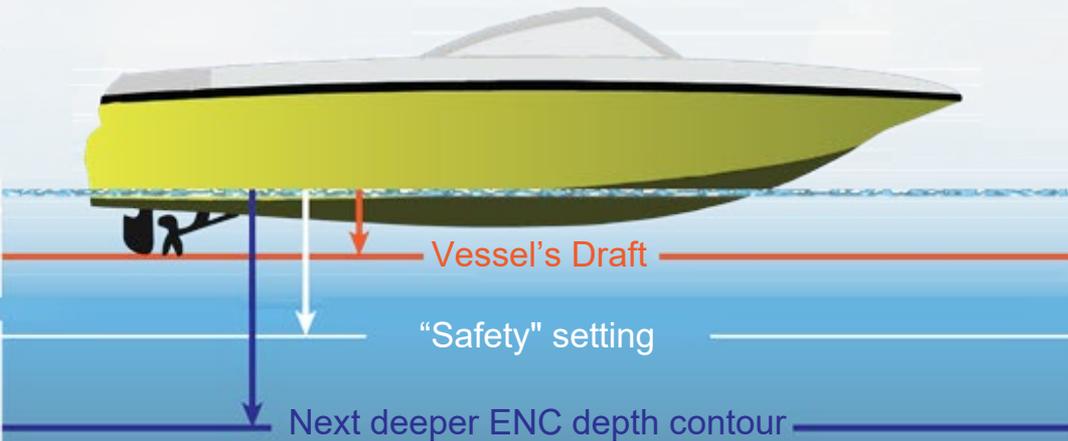


NOAA
Coast Survey

The background of the slide is a stylized illustration of a seascape. The sky is a clear, bright blue, populated by several large, fluffy white clouds. The horizon line is a simple, dark blue curve that separates the sky from the ocean. The ocean itself is depicted with a gradient of blue, transitioning from a lighter shade near the horizon to a darker, deeper blue in the foreground.

Safety Depth and Safety Contour

“Safety Depth” Value and “Safety Contour”



Water level

} Safety factor added by the user

If a contour matching the “safety” setting does not exist, the next deeper contour in the ENC data is selected to be the “safety contour.”

Office of Coast Survey
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

NOAA Custom Chart Version 2.0
Choose your own chart scale and location
Save charts to a personal chart catalog

?
🏠
📄
📍
💬

Chart Settings

Use these settings to enter your chart parameters. More information about chart scale, depth zone shades and other settings is in the [User Guide](#).

Name:

Scale:

Page size:

Orientation:

Depth units:

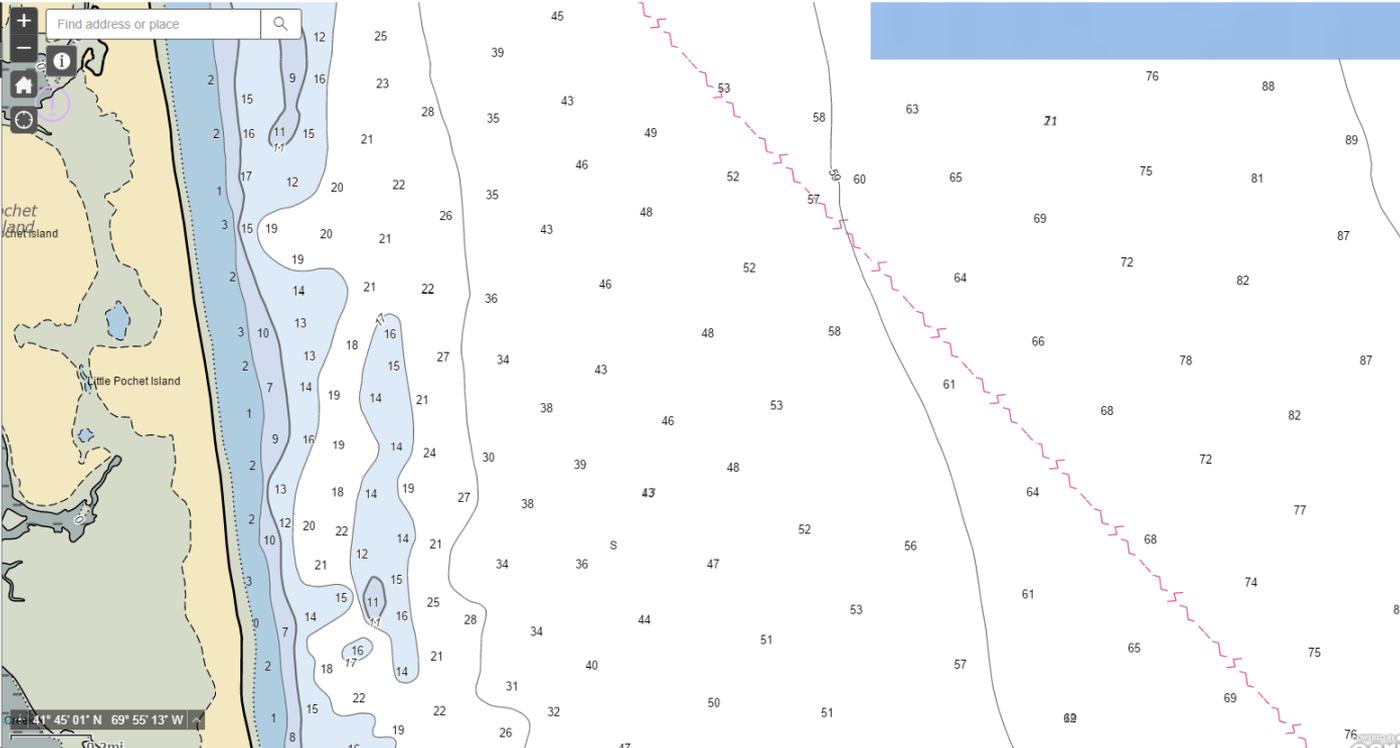
Depth zones:

Shallow:	Safety:	Deep:
5	11	17

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Create New Chart
Move Chart

After populating all fields, click Create New Chart, then click the map once at the center of your chart. Click Move Chart, then click and drag the chart outline to refine its position.



41° 45' 01" N 69° 55' 13" W

2mi

NOAA NGDC, Esri, DeLorme, NaturalVue | NOAA NGDC, Esri, DeLorme



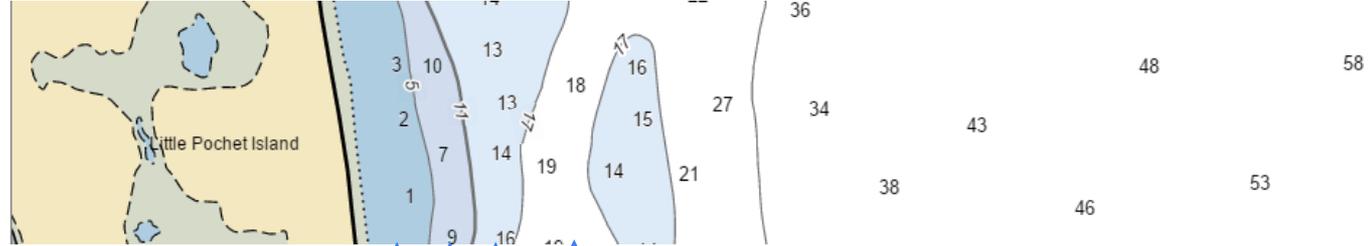
Depth units:

Depth zones:

Shallow: Safety: Deep:

Depth zone shades:

		
---	---	---



0 - 5

5 - 11

11 - 17

17+

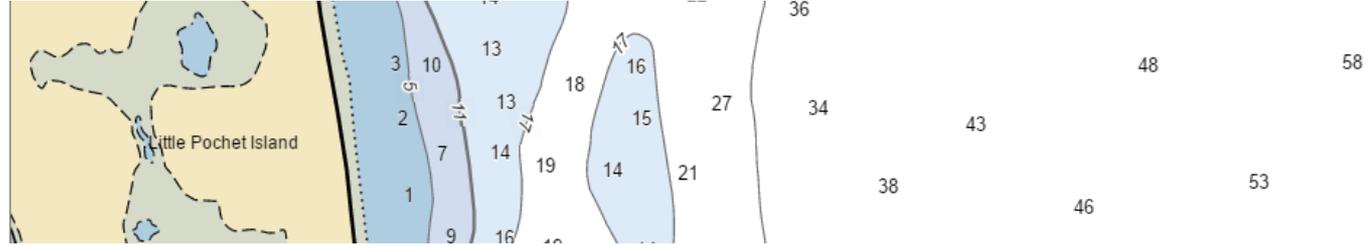
Depth units:

Depth zones:

Shallow: Safety: Deep:

Depth zone shades:

5	11	17
---	----	----



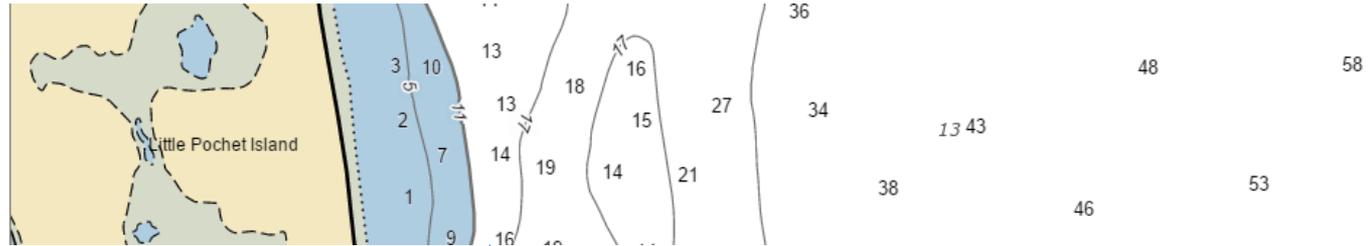
Depth units:

Depth zones:

Shallow: Safety: Deep:

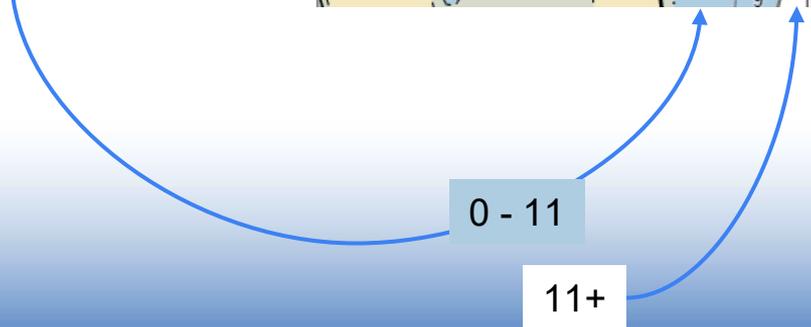
Depth zone shades:

5	11	17
---	----	----



0 - 11

11+

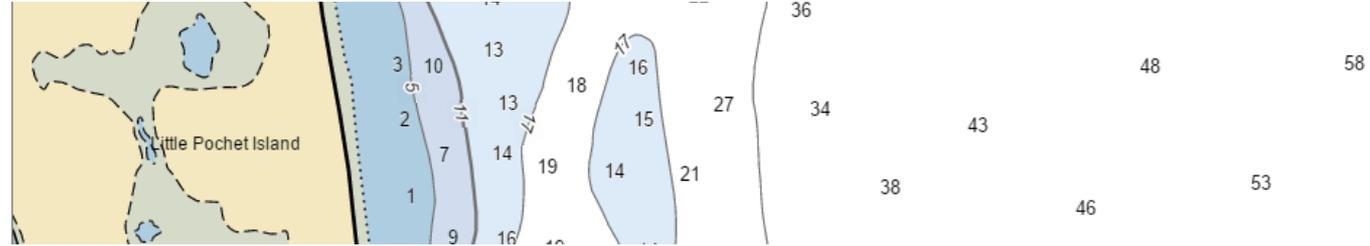


Depth units: **Feet**

Depth zones: **Four**

Shallow: **5** Safety: **11** Deep: **17**

Depth zone shades:

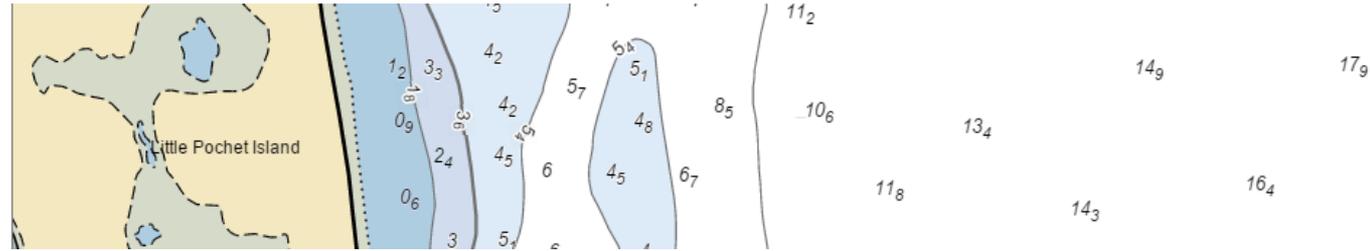


Depth units: **Meters**

Depth zones: **Four**

Shallow: **1** Safety: **3** Deep: **5**

Depth zone shades:



$$\frac{18 \text{ feet}}{3.2801} = 5.488 \text{ m} \rightarrow 5.4 \text{ m (in ENC)}$$



$$5.4 \text{ m} \times 3.2801 = 17.71 \rightarrow 17 \text{ ft (in NOAA Custom Chart application)}$$



NOAA
Coast Survey

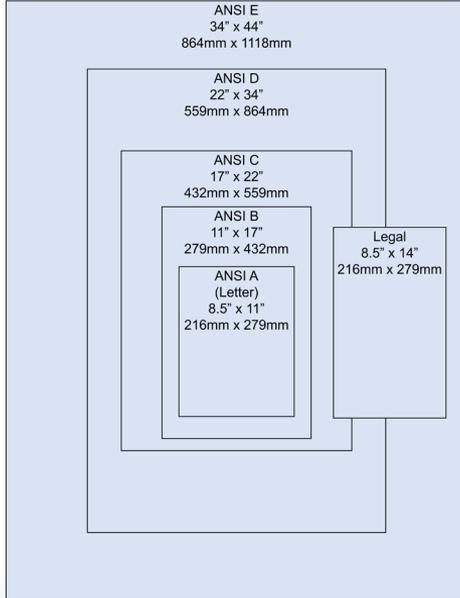
The background of the slide is a stylized illustration of a bright blue sky with several large, white, fluffy clouds. Below the sky is a dark blue horizon line representing the ocean. The lower half of the slide is a solid, deep blue gradient.

NOAA Custom Chart Demonstration

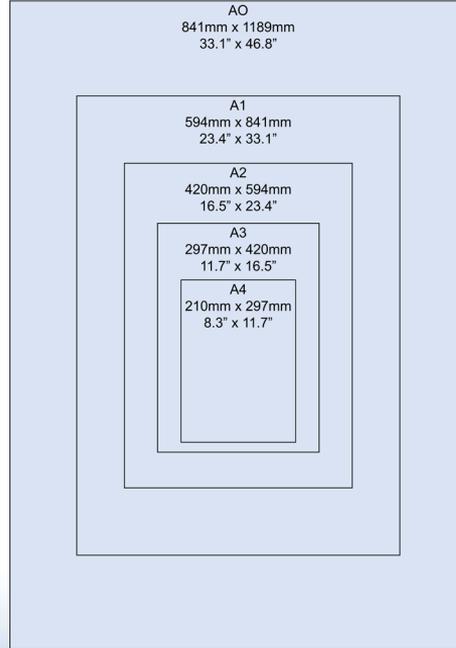
- User control of compass rose placement
- Additional symbology and labeling improvements
 - Aids to Navigation labels
 - Labeling CFR references for anchorages, restricted areas, etc.
- Online NOAA ENC Updates application interface with NCC personal chart catalogs
- Option for metric units for heights & vertical clearances



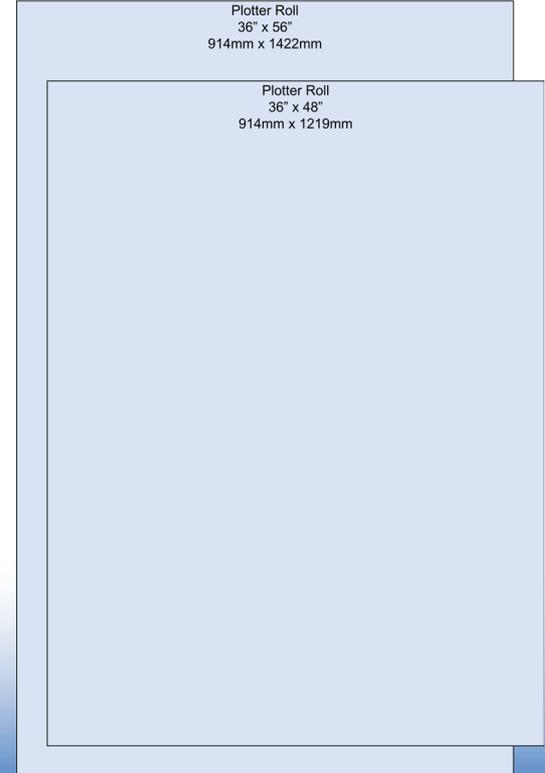
North American (ANSI)



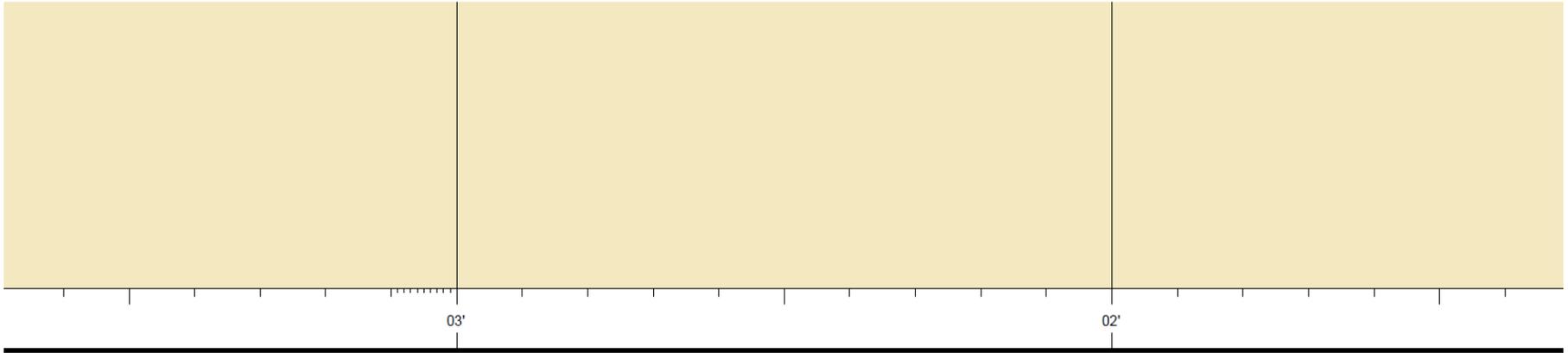
International (ISO)



Plotter Roll



Scale Verification Bar



AIDS TO NAVIGATION

Consult the U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details, see U.S. Coast Guard Light List.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

To ensure that this chart was printed at the proper scale, the line above should measure six inches (152 millimeters).





Help Documentation

Use these links to open the two-page Quick Start Guide or the detailed-instructions in the User Guide. U.S. Chart No. 1 describes the meaning of symbols used on nautical charts.

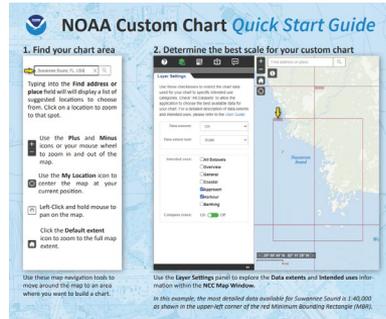
-  Quick Start Guide
-  User Guide
-  Creating a Custom Chart and a Personal Chart Catalog (12.23)
-  Legend (U.S. Chart No. 1)

New in NOAA Custom Chart Version 2.0

Enhancements

- Added Personal Chart Catalog functionality
 - Enables users to save their own custom chart parameters for later use.
 - Enables users to share their custom chart parameters with others.
 - Enables users to reload saved chart parameters to recreate charts with newly updated information.
- Streamlined user interface with clearer icons and descriptions for each step.
- Modified additional symbology to emulate paper chart.
- New 36" x 48" Plotter page size.

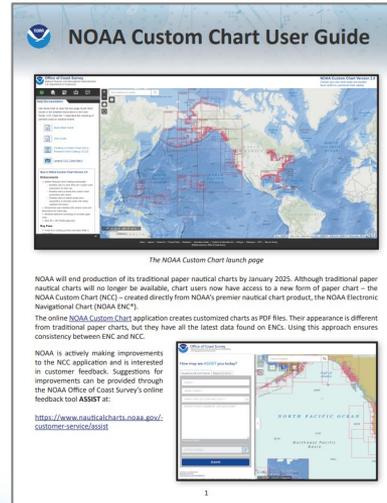
4 page Quick Start Guide



NOAA Custom Chart Quick Start Guide

1. Find your chart area
2. Determine the best scale for your custom chart

14 page User Guide



NOAA Custom Chart User Guide

The NOAA Custom Chart launch page

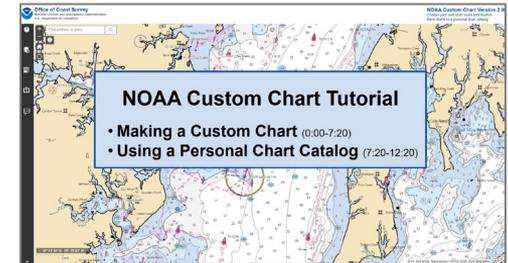
NOAA will end production of its traditional paper nautical charts by January 2025. Although traditional paper nautical charts will no longer be available, chart users now have access to a new form of paper chart – the NOAA Custom Chart (NCC) – created directly from NOAA's premier nautical chart product, the NOAA Electronic Navigational Chart (NOEA ENC).

The online NOAA Custom Chart application creates customized charts as PDF files. Their appearance is different from traditional paper charts, but they have all the latest data found on ENCs. Using this approach ensures consistency between ENC and NCC.

NOAA is actively making improvements to the NCC application and is interested in customer feedback. Suggestions for improvements can be provided through the NOAA Office of Coast Survey's online feedback tool ASSIST at:

<https://www.nauticalcharts.noaa.gov/customer-service/assist>

Video Tutorial



NOAA Custom Chart Tutorial

- Making a Custom Chart (0:00-7:20)
- Using a Personal Chart Catalog (7:20-12:20)

132 page Chart Symbology Guide

U.S. Chart No. 1

Symbols, Abbreviations and Terms used on Paper and Electronic Navigational Charts

13th Edition
April 15, 2019

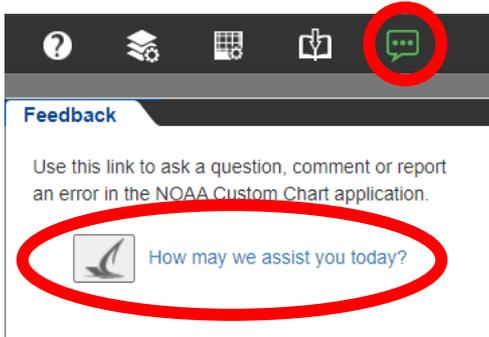
Prepared Jointly by
Department of Commerce
National Oceanic and Atmospheric Administration
Department of Defense
National Geospatial-Intelligence Agency

N Areas, Limits



No.	INT	Description	NOAA	NGA	Other NGA	ECDIS	
General *							
Dredged and Swept Areas → I		Submarine Cables, Submarine Pipelines → L	Tracks, Routes → M				
On multi-colored charts, symbols in Section N may be in green when associated with environmental areas.							
1.1		Maritime limit in general usually implying permanent physical obstructions tint band for emphasis				 Caution area, a specific caution note applies	
1.2		usually implying no permanent physical obstructions tint band for emphasis					
2.1		Limit of restricted area tint band for emphasis				 Area where entry is prohibited or restricted or to be avoided	
2.2		Limit of area into which entry is prohibited					 Area where entry is prohibited or restricted or to be avoided, with other cautions
							 Area where entry is prohibited or restricted or to be avoided, with other information
Anchorages, Anchorage Areas							
10		Reported anchorage (no defined limits)				 Anchorage area as a point at small scale, or anchor points of mooring net at large scale	
11.1		Anchor berths			 No 1	 No 6 Anchor berth	
11.2		Anchor berths with swinging circle				 Radius of swing circle is obtained by course or pick	

* ECDIS represents many types of area limits with just a few different symbols. Information about the type of area and its associated restrictions or prohibitions may be obtained by cursor pick.



 **Office of Coast Survey**
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

How may we ASSIST you today?

Questions & Comments | Report an Error

EMAIL *

VERIFY EMAIL *

WHAT TYPE OF USER ARE YOU? *

ENTER YOUR COMMENT OR QUESTION *

*required field

ATTACH FILE(S)

Submit

Use Coast Survey's online ASSIST feedback tool to:

Ask a question
Make a suggestion
Report an error

concerning the NOAA Custom Chart tool,
or any other NOAA nautical product or service.

Please include:

Location that the chart covers
Scale you have selected for the chart
Attach the NCC chart PDF or a screenshot



Chart Settings

Use these settings to enter your chart parameters. More information about chart scale, depth zone shades and other settings is in the User Guide.

Name:

Scale:

Page size:

Orientation:

Depth units:

Depth zones:

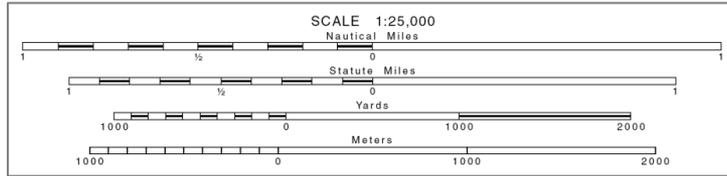
Shallow:	Safety:	Deep:
<input type="text" value="5"/>	<input type="text" value="11"/>	<input type="text" value="17"/>

Depth zone shades:



Three Interrelated Map Qualities

Map Scale



Changing map **scale** or **paper size** will change the **area covered** by the map.

Paper Size

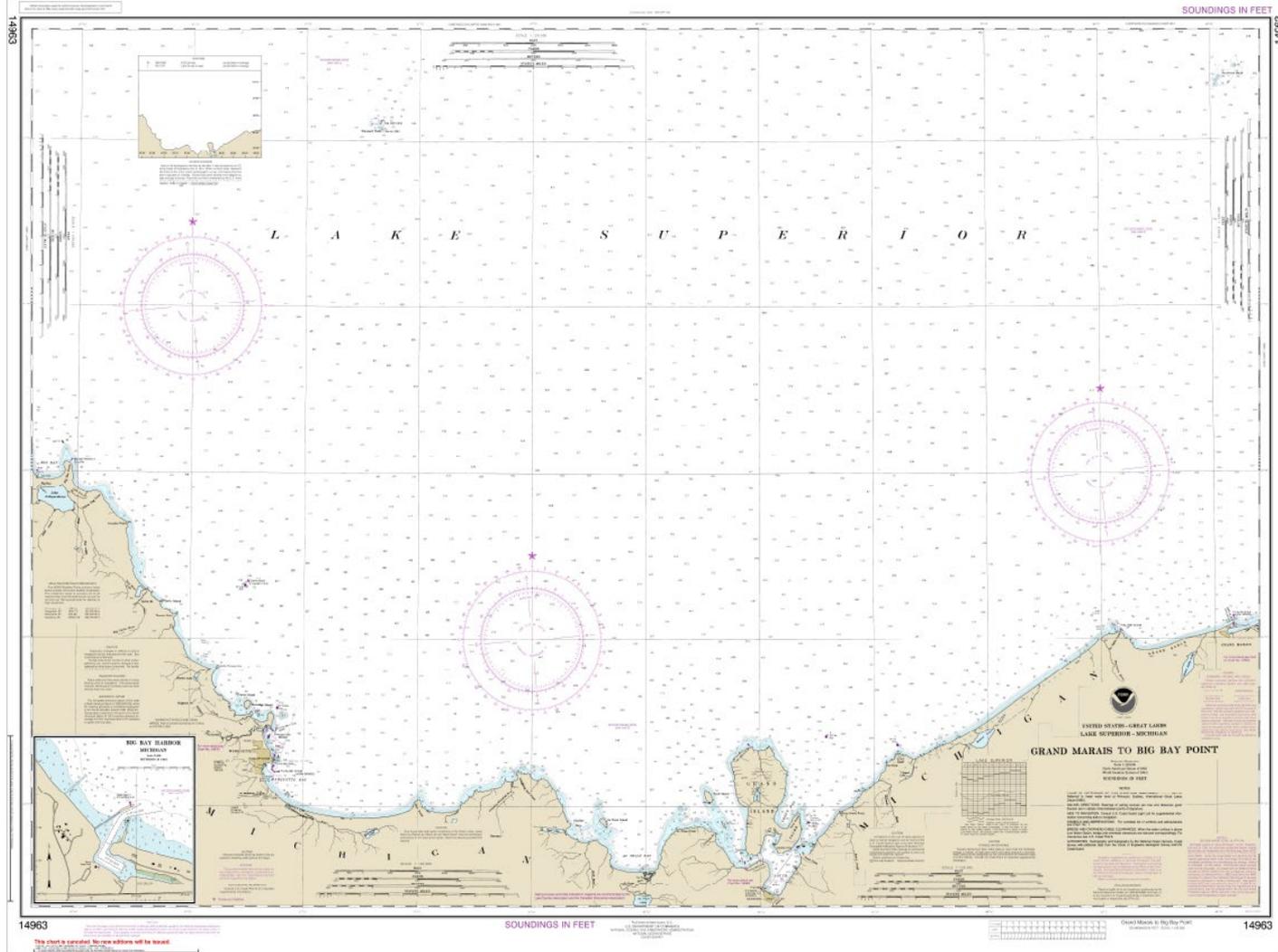


Area of the Earth Covered



Chart 14963 1:120,000

Lake Superior
Grand Marais to Big Bay
One 1:5,000 Inset



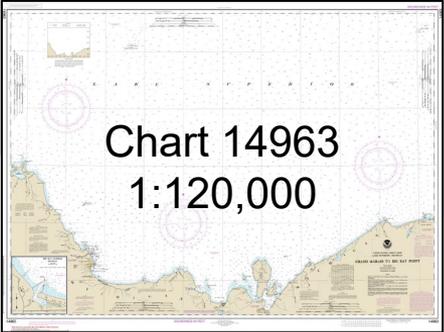
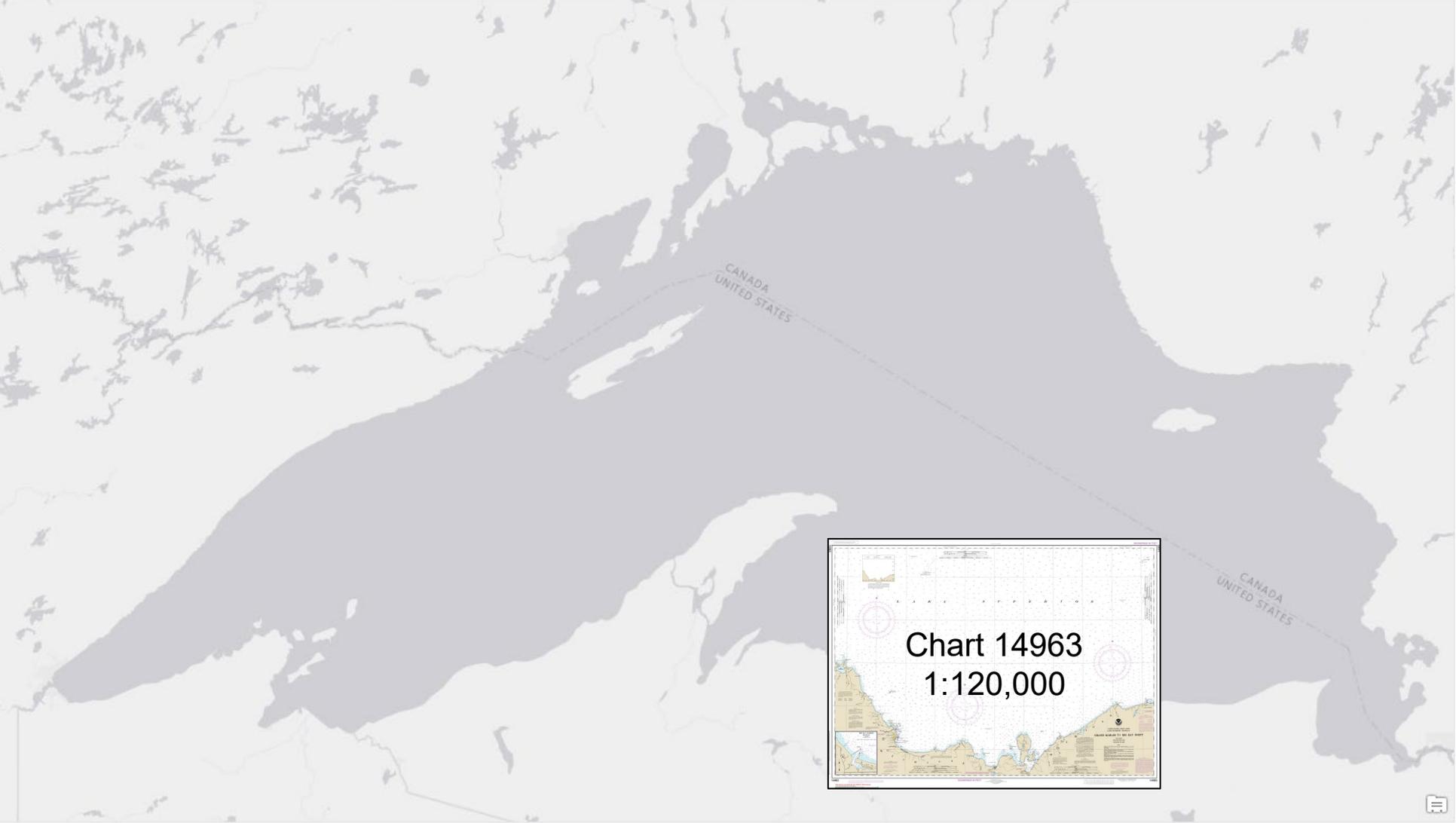
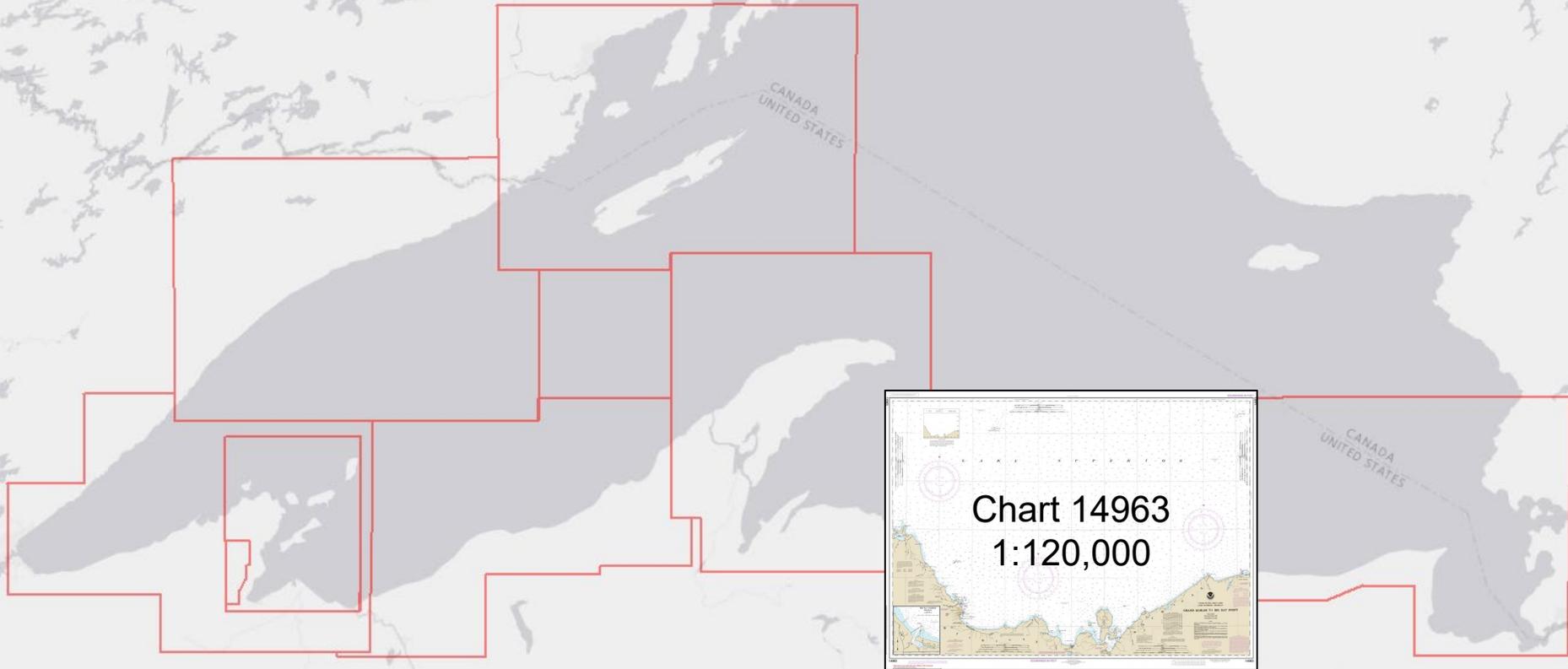


Chart 14963

1:120,000

Previous 1:120,000 scale ENC coverage Based on traditional paper nautical chart footprints



Reschemed 1:80,000 & 1:40,000 scale ENC coverage

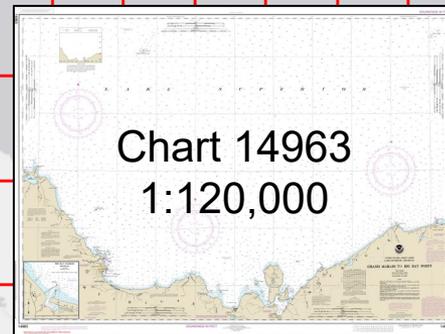
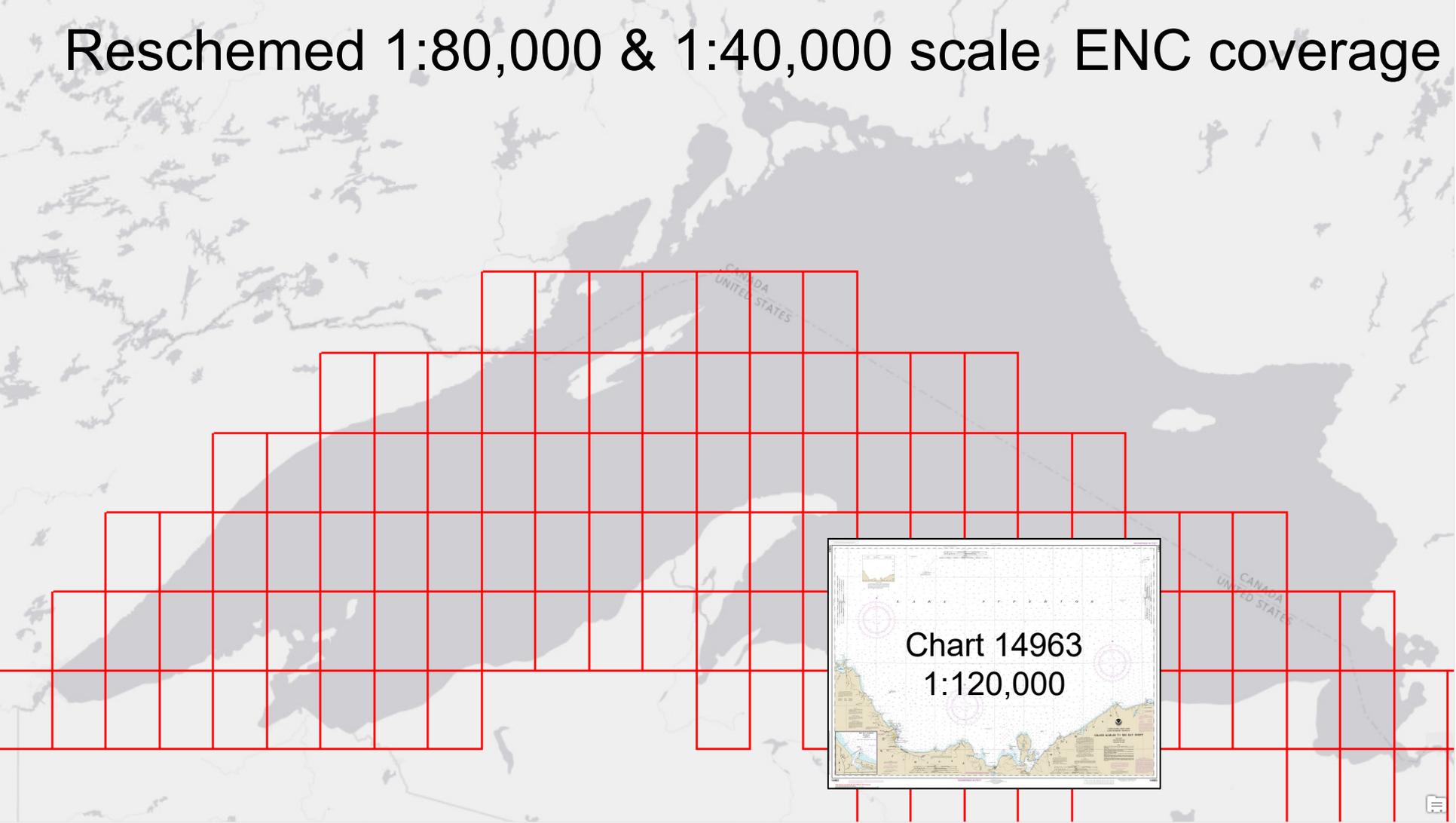
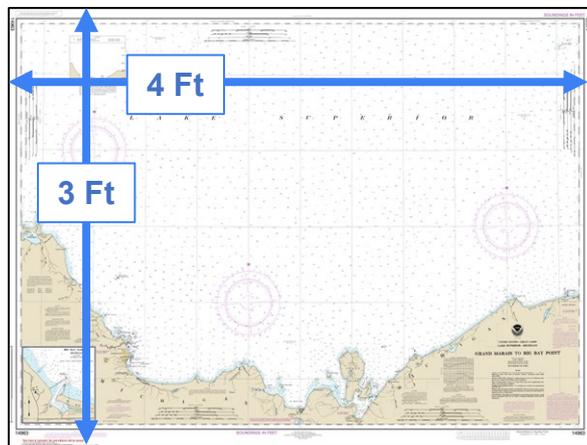
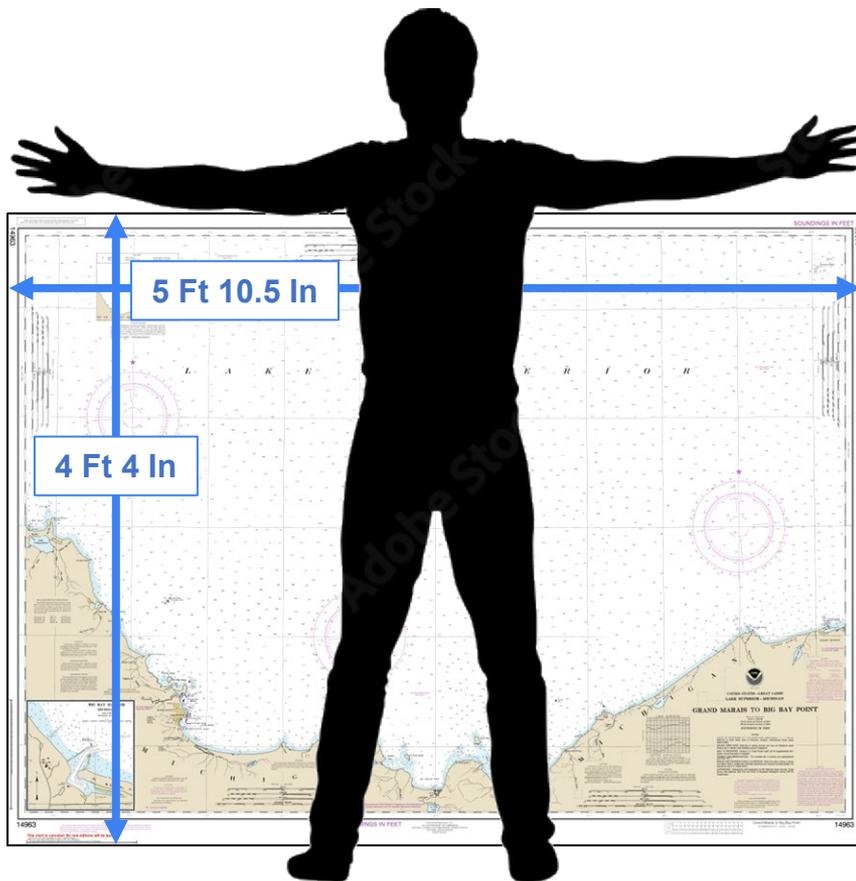


Chart 14963
Lake Superior
Grand Marais to Big Bay

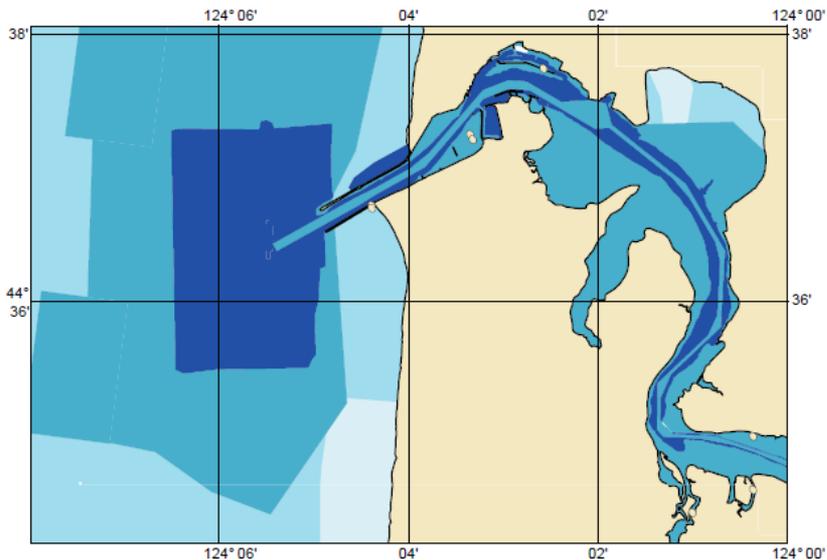


1 : 120,000 Scale



1 : 80,000 Scale

Zone of Confidence (ZOC) Diagram



Darker blue shows areas surveyed with more precise methods

ZOC CATEGORIES

ZOC	COLOR	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1		± 5 m ± 16.4 ft	= 0.50 m +1% d = 1.6 ft +1% d = 0.3 fm +1% d	All significant seafloor features detected.
A2		± 20 m ± 65.6 ft	= 1.00 m +2% d = 3.3 ft +2% d = 0.6 fm +2% d	All significant seafloor features detected.
B		± 50 m ± 164.0 ft	= 1.00 m +2% d = 3.3 ft +2% d = 0.6 fm +2% d	Uncharted features hazardous to surface navigation are not expected but may exist.
C		± 500 m ± 1640.4 ft	= 2.00 m +2% d = 6.6 ft +2% d = 1.1 fm +2% d	Depth anomalies may be expected.
D		Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected.
U		Unassessed - The quality of the bathymetric data has yet to be assessed.		



Chart and Feature Specific Notes

Yaquina Bay, Oregon

NOAA CUSTOM CHART
NOTES GEOSPATIAL DATABASE
VERSION 1.0 - 30 MARCH 2021

The records of the NOAA Custom Chart Notes Geospatial Database are current as of March 30, 2021. Subsequent additions and refinements are to be expected. Please refer to all available navigational publications for complete information about the charted area.

CHART EXPIRATION

Notice to Mariners are not issued for this NOAA Custom Chart. Users are strongly encouraged to replace this chart every six months.

HEIGHTS

Regardless of the units for depths, heights - including bridge and other overhead clearances - shown on this chart are in meters. Multiply meters by 3.28 to convert to feet.

TIDAL INFORMATION

For tidal information see the NOS Tide Table publication or go to <https://tidesandcurrents.noaa.gov>.

ABBREVIATIONS

For complete list of Symbols and Abbreviations, see Chart No. 1.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

Generation Date: 14 May 2023

USCG CARRIAGE REQUIREMENTS
Mariners should use the electronic navigational sections of Titles 33 and Code of Federal Regulation commercial vessels to currently corrected marine navigation.

AUTOMATED CHART GENERAL INFORMATION
This chart has been rendered from NOAA Navigational Chart (NOA) Mariners using this understand this is reproduction of the ENC a been individually quality adjusted for optimal navigation.

AUTHORITIES

Hydrography and topographic National Ocean Service, Co with additional data from of Engineers, Geological Survey Coast Guard and National Intelligence Agency.

COMMENTS REQUEST

Inquiries, discrepancies comments about the applic to generate this chart submitted to: ocsddata.nco.noaa.gov/idrs/inquiry.aspx?frompage=Content

SOUNDING DATUM

Soundings referred to Low Water (MLLW).

VERTICAL DATUM

Overhead clearances are Mean High Water (996).

Yaquina Bay, Oregon

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details, see U.S. Coast Guard Light List.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 10. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 11th Coast Guard District in Seattle, WA or at the Office of the District Engineer, Corps of Engineers in Portland, OR. Refer to charted regulation section numbers.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

USACE conducts hydrographic surveys to monitor navigation conditions. These surveys are not intended to detect underwater features. Uncharted features hazardous to surface navigation are not expected but may exist in federal channels. For more information visit <https://navigation.usace.army.mil/Survey/nyfno>.

Generation Date: 14 May 2023

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar identification on these aids is omitted from this chart.

WARNING

The prudent mariner will rely solely on any single navigation, particularly electronic aids. See U.S. Coast Guard and U.S. Coast Pilot for details.

CAUTION LIMITATIONS ON THE USE OF SIGNALS

Limitations on the use of signals as aids to marine can be found in the U.S. Light Lists and National Intelligence Agency Public Radio direction-finder commercial broadcasting is subject to error and should be used with caution.

COLREGS DEMARCATION

The Inland Navigational Rules of 1980 is in effect in this area. The boundaries of this area are demarcated by COLREGS demarcation lines, which are governed by COLREGS: International Regulations for Preventing Collisions at Sea, 1972. The COLREGS line is defined in COLREGS 11-1344.

Yaquina Bay, Oregon

CAUTION SUBMERGED CABLES AND PIPELINES

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging or trawling. Covered wells may be marked by lighted or unlighted buoys.

FLOAT AREA

A float area is found in the vicinity of the bend in the Yaquina River. Its position is approximate.

CHANGEABLE AREA

The entrance channel to Yaquina Bay is subject to change. Strangers to the area should not attempt to enter without a pilot.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Newport, OR KJH-33 162.559MHz

Generation Date: 14 May 2023

Page 4



Chart Settings

Use these settings to enter your chart parameters. More information about chart scale, depth zone shades and other settings is in the User Guide.

Name:	<input type="text" value="Au Train Bay West"/>
Scale:	<input type="text" value="80000"/>
Page size:	<input (36in="" 48"="" 48in)"="" sheet="" type="text" value="Plotter 36" x=""/>
Orientation:	<input type="text" value="Portrait"/>
Depth units:	<input type="text" value="Feet"/>
Depth zones:	<input type="text" value="Four"/>
Shallow:	<input type="text" value="5"/>
Safety:	<input type="text" value="11"/>
Deep:	<input type="text" value="17"/>
Depth zone shades:	<input type="text"/>

Depth zones shallower than the entered values are tinted in the shade of blue shown. If no contour for the value exists in the ENC data, the next deeper contour is used. Depth zones deeper than the "Deep" value are displayed as white.

[Create New Chart](#) [Move Chart](#)

After populating all fields, click Create New Chart, then click the map once at the center of your chart. Click Move Chart, then click and drag the chart outline to refine its position.



46° 04' 42" N 85° 33' 58" W

10mi